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Yoga as an adjunctive treatment to *Saber es Poder* group therapy for healing trauma in Latina women: A preliminary study

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YOGA AS AN ADJUNCTIVE TREATMENT TO *SABER ES PODER* GROUP THERAPY FOR HEALING TRAUMA IN LATINA WOMEN: A PRELIMINARY STUDY

A DISSERTATION

SUBMITTED TO THE FACULTY

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Abstract

Psychological traumas such as interpersonal violence and sexual assault have complex effects on the minds and bodies of those who experience them. In particular, there is growing awareness and research about how trauma affects the brain, the body, and the relationship between these entities. Yoga is one promising avenue of treatment for addressing psychological disorders, including the effects of trauma. To date, little research has been conducted on the use of yoga as a primary or adjunctive treatment for trauma-related distress. A group of particular interest and concern is Latina women, as they may be particularly vulnerable to the effects of trauma and also less likely to receive culturally and linguistically appropriate mental health care to support their healing process. To date, no studies have been published about the implementation of yoga as a treatment for trauma with this group. The current study examines outcomes and participants' subjective experience of a particular model integrating trauma-sensitive yoga with a culturally appropriate group therapy protocol (*Saber Es Poder).* Due to a small sample size, statistically significant changes on the Trauma Symptom Inventory and an idiographic measure developed for this study were not found. However, qualitative interviews showed that participants largely experienced the group as helpful and self-reported a number of changes. Furthermore, reports of their experiences provide guidance for future implementation of this type of model.

Keywords: Yoga, Trauma, Latino, Group Psychotherapy

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Introduction

Latinos[1] are the largest and fastest-growing ethnic or racial minority group in the United States, currently comprising 16% of the U.S. population and with a projected population of 132.8 million by July 1, 2050 (U.S. Census Bureau, 2010). Latinos in the U.S. have higher rates of poverty and lower rates of health insurance coverage than the general population, with 32.1% uninsured (U.S. Census Bureau, 2009). Latinos face significant barriers to receiving appropriate mental health care including inadequate health insurance coverage, a scarcity of Spanish-speaking mental health care providers, and cultural stigma about seeking mental health treatment (Kandula, Kersey, & Lurie, 2004). The U.S. Department of Health and Human Services (DHHS) concluded, "the system of mental health services currently in place fails to provide for the vast majority of Latinos in need of care" (U.S. Department of Health and Human Services, 2001, p. 146).

An area where services are especially needed is for Latina women who have experienced a traumatic event and are subsequently living with distress or dysfunction such as Posttraumatic Stress Disorder (PTSD; American Psychiatric Association, 2000) or other complex posttraumatic states such as those described by Briere and Spinazzola (2005). Several factors suggest that this group is particularly vulnerable. First, women in general are more likely to develop PTSD following exposure to a traumatic event than men are (Breslau, 2009; Tolin & Foa, 2006). Evidence suggests that Latinos are at higher risk for developing PTSD following traumatic exposure than the general population (Pole, Best, Metzler, & Marmar, 2005) and experience

[1] The term "Latino" refers to people of any race who trace their origin or ancestry to Mexico, Cuba, Puerto Rico, Spanish speaking Central or South America, or other Spanish cultures (U.S. Census Bureau, 2007). Although the terms "Latino" and "Hispanic" are often used interchangeably, "Latino" will be used throughout this paper for the sake of consistency. "Latina" refers specifically to female members of this population.

greater PTSD symptom severity and different symptom presentation than non-Latino Whites (Marshall, Schell, & Miles, 2009). Marshall, Schell, and Miles (2009) found that Latinos were significantly more likely to exhibit the "positive" symptoms of PTSD such as hypervigilance, intrusive thoughts, flashbacks, emotional reactivity, and an increased startle response.

Traumatic events can include accidents, injuries, war, interpersonal violence, physical, sexual, and emotional abuse, or some combination of the above. In a sample of undocumented immigrants, Rasmussen and colleagues (2007) found that "the cluster of psychological symptoms characterized as PTSD appears much more closely linked to the experience of an event as threatening or injurious rather than the trauma event itself" (p. 141). In particular, they found that violence by authorities, domestic violence by a partner, and sexual abuse or rape were likely to be perceived as threatening and be associated with a diagnosis of PTSD. Chronic interpersonal trauma, such as sexual or physical abuse and intimate partner violence, has been linked to a complex constellation of symptoms that is not captured in the traditional conceptualization of PTSD, especially when the trauma occurs in childhood (van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005). Childhood abuse is the leading cause of traumatization among women (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995) and women are much more likely than men to experience trauma within an intimate relationship over their lifetime (Acierno, Resnick, Kilpatrick, Saunders, & Best, 1999). For Latina women who may have compounding factors such as lack of financial resources and inadequate social support, abuse and interpersonal trauma may be particularly detrimental.

Affordable, effective, culturally and linguistically appropriate mental health services for Latinas who have experienced trauma are essential. One approach that has been implemented with success is group therapy for those living with PTSD and other trauma-related problems

(Ruzek, Young, & Walser, 2003) and victims of interpersonal violence (Fritch & Lynch, 2008). One such model is the Trauma Recovery and Empowerment Model (TREM; Harris, 1998) and its subsequent cultural and linguistic adaptation for Spanish-speaking Latinas, *Saber Es Poder*, which translates to "knowledge is power" (Harris, Wallis, Amaro, & Cortés, 2006).

The complexity of psychological, physiological, and neurobiological responses to trauma that go beyond the conceptualization of PTSD necessitate a treatment that addresses the full range of these effects (van der Kolk, 2002a; van der Kolk & Saporta, 1991). One potential approach for providing an adjunctive treatment to group psychotherapy for trauma is the addition of a yoga component. Although research examining the use of yoga as a treatment for PTSD and other trauma-related problems is in its nascent stage, there is promising initial evidence to suggest that it may be effective in addressing the physiological symptoms of trauma-related disorders in ways that talk therapy alone cannot do (van der Kolk, 2006). The present pilot study is an investigation of the integration of trauma-sensitive yoga with the *Saber Es Poder* model, with the intention of gathering evidence regarding the outcomes of this integrated model in addressing PTSD and other trauma-related problems in Latina women, a group for whom services is historically lacking.

Literature Review

Trauma, PTSD, and Abuse

Trauma can include a variety of events, either witnessed or experienced directly. One way to conceptualize the spectrum of traumatic events is to draw distinctions between interpersonal, noninterpersonal, witnessed, and experienced events. In a survey study of the

prevalence of trauma and delayed recall, Elliott (1997) divided trauma into three categories: noninterpersonal trauma, witnessed trauma, and experienced interpersonal trauma. Noninterpersonal trauma includes events such as vehicle accidents and natural disasters, witnessed trauma includes events such as witnessed domestic violence and the murder or suicide of a loved one, and experienced interpersonal trauma includes events such as childhood physical or sexual abuse and adult physical assault, sexual assault, or rape. (Elliott, 1997). This continuum of complexity was also described by Briere and Spinazzola (2005), with traumatic events ranging from single incidents occurring in adulthood of individuals with normal childhood development, healthy nervous systems, and no co-occurring disorders to multiple, stigmatizing, invasive, interpersonal events occurring over a long period of time in individuals who may be more vulnerable to the effects of trauma.

As a result of a single or multiple traumatic event(s), individuals can experience a variety of psychological problems and challenges in living, perhaps the best known of which is Posttraumatic Stress Disorder. PTSD, according to the Diagnostic and Statistical Manual of the Amercan Psychiatric Association (*DSM-IV-TR*, American Psychiatric Association, 2000), involves "the development of characteristic symptoms following exposure to an extreme traumatic stressor" (p. 463). In order to meet criteria for a diagnosis of PTSD, an individual must have experienced, witnessed, or been confronted with an event involving a serious threat of harm to the life or physical integrity of the self or other (criterion A_1) *and* responded to the event with intense fear, helplessness, or horror (criterion A_2). Additionally, the individual must display a certain number of symptoms in each of three categories: persistent reexperiencing of an event (criterion B, one of five symptoms), persistent avoidance of stimuli associated with the event

and numbing of general responsiveness (criterion C, three of seven symptoms), and persistently increased arousal (criterion D, two of five symptoms).

The American Psychiatric Association (2000) cites a lifetime prevalence rate for PTSD of approximately 8% in the U.S. adult population. However, rates of exposure to trauma are much higher, with 89.6% of adults in the Detroit Area Survey of Trauma reporting having been exposed to any traumatic event in their lifetime (Breslau, 2009). In a review of epidemiological studies of trauma, Solomon and Davidson (1997) found lifetime rates of trauma exposure ranging from 40% to 70%. Gender differences in exposure to trauma and PTSD are consistent in the literature. In a quantitative analysis of studies over the previous 25 years, Tolin and Foa (2006) found that although men are more likely to be exposed to traumatic events in their lifetime, women and girls are about twice as likely as men and boys to develop PTSD. These authors found that males and females experience different kinds of trauma, with men reporting higher rates of accidents, nonsexual assault, combat or war, disaster or fire, or serious illness or unspecified injury and women reporting higher rates of sexual assault and childhood sexual abuse. The gender differences in PTSD cannot be fully explained by females' higher risk for childhood sexual abuse and adult sexual assault (Tolin & Foa, 2006).

Individuals who have experienced a traumatic event are at risk for developing other psychiatric disorders such as major depression, anxiety disorders other than PTSD, and substance use disorders, whether or not they meet criteria for PTSD. However, the relationship between these factors is complex, and it cannot be assumed that there is a direct causal link between PTSD and other disorders (Breslau, 2009). In their review of epidemiological studies, Solomon and Davidson (1997) found similarly high rates of psychiatric comorbidity in individuals with PTSD as compared to those without it, noting that individuals with PTSD are many times more

likely to have any other psychiatric diagnosis than those without it, including depression, anxiety, substance abuse, and somatization disorders.

In addition to PTSD and other psychiatric disorders, individuals who have experienced a traumatic event in their lifetimes may face an array of challenges that are not captured in the *DSM-IV-TR* diagnostic categories. Solomon and Davidson (1997) found that individuals who had been exposed to trauma had high rates of physical health problems and impairments in social and occupational functioning. Citing an unpublished study by Amaya-Jackson and colleagues, Solomon and Davidson reported that people with even one PTSD stymptom were likely to experience poor social support, marital problems, occupational problems, and to show impairment on income and disability measures when compared to those without any psychiatric diagnosis. Clearly, those who have experienced trauma in their lifetime are likely to suffer a range of psychiatric illnesses and impairments in functioning.

Furthermore, the current diagnostic system may not accurately address the complicated sequelae of trauma that affects many individuals. In an analysis of the data collected in the *DSM-IV* field trial for PTSD, van der Kolk and colleagues (2005) compared PTSD and Disorders of Extreme Stress Not Otherwise Specified (DESNOS), a proposed diagnostic category intended to capture posttraumatic sequelae not included in the PTSD diagnosis. The DESNOS category was developed based on research on trauma in children, female victims of domestic violence, and concentration camp survivors. Herman (1992) organized the DESNOS symptoms into the following categories: alterations of affect and impulses, attention or consciousness, self-perception, perception of the perpetrator, relations with others, systems of meaning, and somatization. Van der Kolk and colleagues (2005) reported that the *DSM-IV* field trial "supported the notion that trauma, particularly trauma that is prolonged, that first occurs at an

early age and that is of an interpersonal nature, can have significant effects on psychological functioning above and beyond PTSD symptomatology" (p. 394). Briere and Runtz (1988) examined the incidence and long-term effects of childhood sexual abuse in a clinical sample of women. They found that abuse victims were significantly more likely than those who had not been abused to be taking psychotropic medications, have a history of substance addiction, to have experienced revictimization in adulthood, and to have made at least one suicide attempt. They found that sexual abuse had a medium effect on anger, sleep disturbance, and dissociation and a large effect on sexual difficulties.

Much evidence suggests the types of trauma that women are most likely to experience, particularly childhood abuse beginning at a young age and lasting for an extended period, are linked to a more complex presentation of symptoms that is not accurately captured in the PTSD diagnosis. Van der Kolk and colleagues (2005) also noted that almost half the treatment-seeking sample met criteria for DESNOS, indicating that DESNOS symptoms and not PTSD may lead individuals to seek treatment.

While the purpose of this paper is not to propose or argue for a new construct for understanding trauma, it is important to note that the effects of trauma extend far beyond what is captured in the PTSD diagnosis and can include a range of emotional, physical, social, and occupational problems that are extremely debilitating, especially for women. The participants in this study will not be limited to those presenting with "pure" PTSD (see Methods section for further discussion) and therefore it would be incomplete to limit the discussion of trauma to the PTSD diagnosis. I do not propose that interpersonal trauma such as sexual abuse, rape, and intimate partner violence are "more" traumatic than other events such as natural disasters and accidents. To do so would be to minimze the real suffering of individuals who have experienced

those types of events. Rather, my aim is to look at a particular type of trauma, how it affects a certain population that may be especially vulnerable, and explore treatment adjuncts to psychotherapy to effectively address the posttraumatic difficulties for this group. Trauma has numerous impacts on the mind and body, which I will describe in further detail below.

Trauma in the Mind and Body

Traumatic events have characteristic effects on the minds and bodies of those who experience them. These responses are designed to help the individual cope with the threat in the short term, but for those who develop PTSD or other complicated responses to trauma, these responses become maladaptive. Although a complete explanation of the neurobiological responses to trauma is beyond the scope of this paper, a basic understanding of the physiological processes of trauma is important in understanding the symptomatology of PTSD and designing appropriate treatment. Davidson and colleagues (2004) have provided a concise description of the body's response to acute stress, which begins when an individual experiences a traumatic event and the sensory information is sent to the amygdala. This activates four simultaneous processes: activation of the startle response, activation of the sympathetic nervous system and a release of adrenaline, suppression of the parasympathetic nervous system, and the release of a cascade of hormones via the activation of the hypothalamic-pituitary-adrenal (HPA) axis and the release of cortisol. Eventually, the hormonal response inhibits the sympathetic nervous system activation through a negative feedback loop (Davidson, Stein, Shalev, & Yehuda, 2004).

In healthy individuals, the stress response is self-regulating and levels of the stress hormones return to normal within hours. However, for those with chronic PTSD, over time the sympathetic and parasympathetic nervous systems become unbalanced, with an overactivation of the sympathetic nervous system and an underactivation of the parasympathetic nervous system.

Although it seems counterintuitive, individuals with PTSD show lower baseline levels of the stress hormone cortisol than controls. This results from the dysfunction of the negative feedback loop that is intended to shut down the stress response when danger has passed (Davidson et al., 2004). Individuals with PTSD tend to respond to stimuli that are reminiscent of the traumatic event and to other intense but non-trauma-related stimuli, such as loud sounds, with high levels of physiological arousal (van der Kolk, 1994). Van der Kolk (1994) noted that this arousal response is bidirectional: reminders of the trauma trigger a hyperaroused state, and aroused emotional or physiological states may trigger memories of the trauma. For those with PTSD or other complicated reactions to trauma, the experience of reliving the trauma may occur many, many times per day and persist long after the trauma is over (Davidson et al., 2004). Whereas memories of ordinary events tend to form coherent narratives that may change over time, memories of traumatic events are not well integrated and tend to present as a fragmented kaleidoscope of emotions, bodily sensations, and imagery that do not alter or become intergrated over time (van der Kolk, 2002a). For traumatized individuals, to recall the trauma is not to simply tell a story about it; it is to experience it as if it were happening all over again.

The symptoms of PTSD fall into two seemingly contradictory categories: the arousal symptoms such as hypervigilance, insomnia, and reexperiencing, and the numbing or avoidance symptoms such as avoidance of trauma-related stimuli, dissociation, and restricted affect. While those with PTSD are at times highly aroused and hyperreactive, at other times they may feel isolated, numb, and unable to connect with others or with their own feelings. This numbing is also a result of the body's attempt to cope with highly stressful situations. In addition to the cascade of hormones that causes arousal, when faced with traumatic events the body releases endogenous opioids, the body's natural painkillers, which produce what is known as stress-

induced analgesia (SIA; van der Kolk & Saporta, 1991; van der Kolk, 1994). This analgesic response is designed to help an organism cope with the pain that often accompanies trauma. One study found that as long as 20 years after the original traumatic event, individuals with PTSD showed an analgesic response to trauma-associated stimuli that was similar in magnitude to the effects of eight milligrams of morphine (van der Kolk, 1989, as cited in van der Kolk & Saporta, 1991). For traumatized individuals, certain bodily sensations, emotional states, or external stimuli are reminders of the feelings of helplessness associated with the trauma and they may cope by responding either with seemily inappropriate anger and imulsivity or by mentally numbing themselves, appearing "spaced out" and disconnected from what is happening in the present (van der Kolk, 2002b). States of hyperarousal and hypoarousal may be adaptive in situations of immediate threat, but become maladaptive when they persist once the danger has passesd, as is the case for many traumatized individuals (Ogden, Minton, & Pain, 2006). In order to effectively integrate and process traumatic experiences, it is necessary to be in the "optimal arousal zone" (Wilbarger & Wilbarger, 1997), also known as the "window of tolerance" (Siegel, 1999). Traumatized individuals often have windows of tolerance with thresholds for arousal that are either too high or too low, making it difficult for them to both modulate their responses to stimuli and remain in the zone optimal for processing trauma (Ogden et al., 2006)

The subjective experience of trauma symptoms, the neurobiology of traumatic stress, and treatment are closely interrelated. The ways in which traumatized people experience traumatic memories and triggers may lead them to avoid talking about what happened to them, even within the context of therapy. Challenges faced by the psychotherapist when working with traumatized individuals include the difficulty that their clients have in putting their experience into words,

distress and retraumatization associated with traumatic recall, avoidance of feelings, thoughts, and situations associated with the trauma, and physiological reactivity (van der Kolk, 2002a). A common complaint among those suffering from chronic and debilitating effects of trauma is that others simply do not understand why they cannot "move on" from what happened in the past (Yehuda, 2002). A sensitive therapist should understand the mechanisms underlying the client's responses to trauma and integrate treatments that address the physiological aspects of posttraumatic distress without relying solely on verbal recall of the trauma, as this may be overwhelming to the client and lead to premature termination or retraumatization.

Another impact of trauma on survivors is the way in which information is processed in the brain. The concept of a three-part brain has been articulated by MacLean (1985) and Wilber (1996). The three parts of the brain include the reptilian brain, involved in sensorimotor processing, the paleomammalian brain, which is involved in emotional processing, and the neocortex, involved in cognitive processing (Ogden et al., 2006). Ogden and colleagues (2006) provide an excellent description of the triune brain, which is summarized here. The reptilian brain is evolutionarily the oldest part of the brain and regulates arousal, homeostasis, and reproductive drives. The paleomammalian, or limbic, brain is present in all mammals and regulates emotion, memory, some social behaviors, and learning. The neocortex is the evolutionarily newest part of the brain and manages cognitive information processing, information cosolidation, self-awareness, and conscious thought. Traumatized individuals may experience disruptions at each level of processing, including difficulty using cortical functions to mediate lower-level processing (top-down processing), difficulty using emotions as appropriate guides for actions, and difficulty effectively regulating physical and sensory reactions (Ogden et al., 2006). In effect, the capacity for the three parts of the brain to work together to process

information, emotions, and bodily sensations is often interrupted in those who have been traumatized. This may present a particular difficulty when attempting to treat posttraumatic sequelae through traditional psychotherapy, which relies on language and other cortical functions to help an individual process traumatic experiences (i.e. top-down processing).

In addition to the characteristic neurobiological and information-processing changes that occur in PTSD and other trauma-related problems, a significant way in which trauma affects the body is through the development of somatic symptoms. Somatization refers to bodily symptoms for which organic causes cannot be found (Escalona, Achilles, Waitzkin, & Yager, 2004). Although traditional psychoanalytic perspectives conceptualized somatization as the result of limited or immature psychological development, today psychological and bodily expressions of distress are viewed as equally valid (U. S. DHHS, 2001). Somatization can be defined in several ways. The *DSM-IV-TR* (American Psychiatric Association, 2000) contains a diagnosis of Somatization Disorder. To meet criteria for this disorder, an individual must have a history of physical complaints including four pain symptoms, two gastrointestinal symptoms, one sexual symptom, and one pseudoneurological symptom, none of which are fully explained by a medical condition or the effects of a substance. Some researchers have used a less restrictive definition known as abridged somatization that indicates the presence of four unexplained somatic symptoms in men and six unexplained somatic symptoms in women (Escobar, Waitzkin, Silver, Garam, & Holman, 1998). Others conceptualize somatization as a continuum ranging from few symptoms to many symptoms occurring across various body areas and systems (Katon, Sullivan, & Walker, 2001).

Regardless of the exact definition used, much research points to a relationship between experiencing trauma and presenting with some form of somatization. In a sample of veteran and

nonveteran women seeking treatment at a VA medical center, Escalona, Achilles, Waitzkin, and Yager (2004) found that PTSD and abridged somatization were significantly correlated and that PTSD was the best predictor of somatization once other factors such as demographics, veteran status, and mood and anxiety disorders were controlled for. In a study of community and clinical samples, van ker Kolk, Pelcovitz, Roth, Mandel, McFArlane, & Herman (1996) found significant relationships between PTSD, dissociation, somatization, and affect regulation. Individuals who had a lifetime history but not current diagnosis of PTSD had significantly higher levels of dissociation, affect dysregulation, and somatization than those who had never had PTSD but significantly lower levels than those with a current diagnosis of PTSD.

Severity of trauma symptomatology also appears to be related to the type and age of onset of abuse. When comparing across types of trauma, van der Kolk and colleagues (1996) found that those who had an early onset of interpersonal trauma showed significantly higher levels on all the domains assessed, including somatization, than those who had experienced interpersonal adulthood trauma or a noninterpersonal disaster. Those with adult trauma scored higher in the areas of unmodulated anger, suicidal behavior, and somatization than those who had exprienced disaster only. Dissociation, somatization, and affect dysregulation appear to be more likely in those with PTSD than those without it, and tend to be more severe when a current diagnosis of PTSD exists and when the nature of the trauma is interpersonal, especially abuse beginning in childhood. Zink, Klesges, and Decker (2009) found a similar pattern in their research while developing a measure of sexual abuse severity, finding that those who experienced more coercive abuse and more invasive types of abuse (e. g. intercourse versus kissing) had higher levels of traumatization, as measured by the Trauma Symptom Inventory, and somatization. They also found a linear relationship between age of first abuse, trauma, and

somatic complaints, with higher levels of trauma symptomatology and somatization correlated with earlier age of first abuse.

While it is clear that some relationship exists between traumatic experience, PTSD, somatization, and other complex trauma symptoms such as dissociation and affect dysregulation, the nature of this relationship is not well understood. Correlational studies do not clarify whether PTSD causes the somatic symptoms, the somatic symptoms cause PTSD, or whether both factors are caused by some other variable (Elklit & Christiansen, 2009). Escalona et al. (2004) found that the numbing symptom cluster of PTSD, excluding avoidance, was the best predictor of somatization. Some authors have proposed that numbing symptoms have a different neurobiology than active avoidance symptoms (Foa, Riggs, & Gershuny, 1995), which could explain their relationship to somatization. Van der Kolk et al. (1996) concluded

> [T]he array of psychiatric symptoms captured in PTSD, dissociation, somatization and problems with regulation of affective states are not likely to constitute separate 'double diagnoses' but represent the complex somatic, cognitive, affective, and behavioral effects of psychological trauma, especially trauma that occurs early in the life cycle.

They also noted that if issues such as somatization are part of the core pathology of posttraumatic disorders, they are not likely to be effectively treated with systematic desensitization. The complexity of the relationship between trauma, somatization, and other seemingly related difficulties that do not fall under the umbrella of PTSD underscores the importance of developing treatments that will address the full range of debilitating posttraumatic sequelae that affect the mental, emotional, and physical states of traumatized individuals.

Trauma and Latinos/Latinas

Trauma can clearly have far-reaching, long-term effects on the minds, bodies, and lives of those who experience it. Evidence points to effects that can be particularly complex and debilitating for women, especially if the trauma is of an interpersonal nature and begins in childhood. For minority groups who may be marginalized and have restricted access to treatment, financial resources, and societal support, these effects may be amplified. Although Latinos are the largest and fastest growing racial or ethnic minority group in the United States (U. S. Census Bureau, 2010), they are less likely than Whites to access medical or mental health care (U. S. Department of Health and Human Services, 2001). Although Latinos are often treated as a homogenous category in research studies, this population actually encompasses a diverse group of individuals that varies greatly according to country of origin, level of acculturation, immigration status, language preference, race, and socioeconomic status. For example, a fourth-generation Cuban-American lawyer living in Miami, Florida and a newly immigrated undocumented Mexican-American migrant worker living in southern California would both fall under the umbrella term "Latino," but would likely have very different personal, economic, and social resources at their disposal.

Some research points to the existence of the "immigrant paradox," in which foreign-born Latinos living in the United States have lower rates of mental health disorders than those born in the U. S. However, in the National Latino and Asian American Study (NLAAS), when the Latino group was further subdivided based on country of origin, the Mexican subgroup was the only one for which the immigrant paradox held true (Alegria, Canino, et al., 2008). Several studies have shown that Latinos are at higher risk for developing PTSD following exposure to trauma than other ethnoracial groups. In a sample of physical injury survivors, Marshall, Schell, and Miles (2009) found that Latinos had significantly higher PTSD symptom severity than non-

Latino Whites. In a representative population survey of the New York City area following the terrorist attacks of September 11, 2001, Latinos of Dominican and Puerto Rican origin were significantly more likely to report higher rates of PTSD than both other Latinos and non-Latino Whites (Galea et al., 2004). In a sample of police officers, Latinos were found to have significantly higher PTSD symptom severity than non-Latino White or Black officers (Pole et al., 2005). A clear pattern has emerged that, even when exposed to similar levels of trauma, Latinos experience more frequent and more severe PTSD than other groups.

Several authors have considered factors that might explain the ethnoracial differences in PTSD. In a sample of Latino immigrants living in Miami, previous exposure to war violence and natural disaster significantly predicted the severity of PTSD symptoms specific to the September 11 terrorist attacks and symptoms consistent with a diagnosis of PTSD (Pantin, Schwartz, Prado, Feaster, & Sapocznik, 2003). In the sample of police officers, Pole et al. (2005) modeled risk factors to explain the greater risk for PTSD among the Latino group. They found that the difference between Latino and non-Latino Black officers was fully explained by differences in peritraumatic dissociation, whereas the difference between Latino and non-Latino White officers was due to differences in peritraumatic dissociation, wishful thinking and self-blame coping styles, less social support, and greater levels of perceived racism. The relationship between ethnicity and risk for posttraumatic problems such as PTSD is complex and not yet fully researched and understood (see Pole, Gone, & Kulkarni, 2008 for a discussion).

In addition to the differences in likelihood and severity of PTSD, research has pointed to potential differences in the way PTSD manifests in Latinos. At the PTSD symptom-cluster level, Pole et al. (2005) did not find differences in reexperiencing symptoms among ethnoracial groups but did find that Latino police officers experienced more severe avoidance/numbing and

hyperarousal symptoms than non-Latino Whites. They did not find differences in symptom cluster severity between Latino officers and their non-Latino Black counterparts. Marshall et al. (2009) examined ethnoracial differences at the individual symptom level and found that the differences did not fall neatly into *DSM-IV-TR* clusters. Rather, they found that Latinos were significantly more likely to experience the symptoms of hypervigilance, intrusive thoughts, flashbacks, loss of interest, emotional reactivity, startle response, avoiding thoughts, sense of a foreshortened future, recurrent dreams, avoiding reminders of the trauma, and irritability. The authors characterized these differences in terms of "positive" and "negative" symptoms of PTSD, concluding that Latinos reported higher levels of the positive symptoms representing an excess of normal functions, such as hypervigilance and intrusive thoughts. Nine of the eleven individual symptoms for which they found significant differences were classified as positive symptoms of PTSD and all six of the symptoms for which there was no difference were classified as negative symptoms of PTSD.

Thus far, the research shows that not only do Latinos experience higher rates of PTSD, but PTSD may manifest in unique ways for this group. There is not a cohesive theory that fully explains these differences. It is noteworthy that none of the studies examining differences in PTSD symptoms across ethnoracial groups have looked specifically at how interpersonal trauma such as sexual abuse, rape, and intimate partner violence affects Latina women. If Latinos are more likely than other ethnoracial groups to develop PTSD subsequent to trauma exposure *and* women are more likely than men both to both develop PTSD following trauma exposure and to experience the kinds of trauma linked with complex and long-lasting problems (e. g. childhood sexual abuse, rape, and intimate partner violence), it is unfortunate that more studies are not paying particular attention to the plight of Latina women who have experienced trauma,

especially abuse. All evidence suggests that this group may be particularly vulnerable to experiencing complex posttraumatic problems, including PTSD, and such problems may manifest differently for them than for the majority population, yet Latinos and Latinas remain among the least likely of any group to have access to appropriate mental health care.

A few studies do examine more closely the effects of violence and abuse on the lives of Latinas. One study looked at PTSD and Major Depressive Disorder (MDD) in a sample of domestic violence service-seeking Latina women who were experiencing intimate partner violence (Kelly, 2010). Kelly found higher rates of PTSD (69.7%) and MDD (57.6%) in the Latina shelter-seeking sample than have been found in both general population studies and studies of abused women. Examining different types of trauma and their relation to PTSD and MDD, Kelly found that experiences of intimate partner violence were not correlated with PTSD and MDD, which ran contrary to expectation and previous research. However, consistent with the research showing the cumulative effects of trauma over the lifetime, she found that a single item identifier of childhood sexual abuse was significantly related to PTSD, MDD, comorbid PTSD/MDD, and health-related quality of life (HRQOL). She also found that PTSD and MDD symptom severity were more closely related to HRQOL than meeting diagnostic cutoffs for PTSD and MDD. Nearly 72% of the respondents rated their physical health as "poor or only fair" rather than "good or excellent." Although the study did not examine somatization directly, this evidence raises the question that some of the poor health related outcomes found in this study could be due, in part, to the existence of somatic symptoms related to trauma.

Another study examined the relationship between intimate partner violence, mental health, physical health, and somatic symptoms in a sample of Mexican American women who had current male partners (Lown & Vega, 2001). The authors found that physical or sexual

abuse by a woman's partner was significantly associated with poorer self-assessed health status, cardiovascular problems such as heart attack, persistent health problems, and many somatic symptoms. In this study somatic symptoms were not restricted to those meeting a diagnosis of Somatization Disorder, but to women who reported that they had persistent multiple physical problems or illnesses over a period of several years. The women who responded "yes" to having multiple physical complaints were queried about 32 specific symptoms. Results showed that abused women were significantly more likely to report gastrointestinal problems, pain during urination, other pain, cardiopulminary symptoms including shortness of breath and chest pain, neurological symptoms including amnesia, trouble walking, paralysis, and urinary retention, sexual symptoms, and reproductive symptoms such as painful menstruation, irregular periods, and excessive menstrual bleeding. Due to the design of the study it was not clear whether the somatic symptoms reported by the women were medically explainable or psychologically based; however, it is clear that Mexican American women who are victims of violence by their male partners are at much higher risk for a variety of health problems than nonabused women.

One study looked more broadly at various types of victimization among Latinas and the effects on psychological health. Cuevas, Sabina, and Picard (2010) reported results from the Sexual Abuse Among Latinas (SALAS) study, which gathered information about victimazation in 2,000 telephone interviews with Latina women. The women's history of interpersonal victimization was assessed using the Lifetime Trauma and Victimization History Instrument and their trauma-related symptoms were assessed using the Anxious Arousal, Depression, Anger/Irritability, and Dissociative scales of the Trauma Symptom Inventory. Cuevas and colleagues found that more than 40% of the women interviewed had experienced some form of victimization in their life, with the majority of that number reporting more than one incident. A

mix of polyvictimization (more than one type of victimization in childhood or adulthood) and revicimization (a single type of victimization occurring in childhood and a single type of victimization occurring in adulthood) was the most common pattern of multiple victimization found. Among the women who had been victimized, a significantly higher proportion of those with multiple victimization were found to have clinically significant depression, anger, anxiety, and dissociation than those with single victimization. Multiple victimization was also found to significantly predict psychological distress over any specific type or single incident victimization. Interestingly, Cuevas et al. suggested that there seems to be a particularly strong connection between victimization, anxiety, and dissociation in Latinas, which is consistent with the culturally defined syndrom of *ataque de nervios*, lending support to the notion that this syndrome is a culturally legitimate reaction to trauma.

The results of these studies are consistent with predictions based on the literature regarding trauma, women, and Latino mental health in general: Latinas who have experienced violence or abuse in their lifetimes are at high risk for significant mental health and medical problems. Appropriate services must address the effects of trauma in these women's lives. Linguistic and cultural considerations are also essential. Thirty-five million Americans spoke primarily Spanish in the home in 2008, a figure that has roughly doubled since 1990, currently representing about 12% of the U. S. Population. Of that 35 million, over half reported that they also speak English "very well" (U. S. Census Bureau, 2010). Among those who speak English, it is reasonable to assume that some would prefer to receive mental health services in Spanish if that is their primary language and the one with which they feel most comfortable. For monolingual Spanish speakers, the range of available services is severly restricted. Although it is possible to conduct therapy through an interpreter, clinical experience has shown that this can

often be unwieldy, expensive, and challenging given the nature of sensitive material that is often discussed between therapist and client. The research shows a significant gap between the needs of Latinas who have experienced childhood or adult physical or sexual abuse and the services available to these women. As a growing sector of the population, the need for services will only increase.

TREM and *Saber Es Poder*

Given the need for linguistically and culturally appropriate mental health care services for Latinas who have experienced trauma and abuse, a brief explanation of what constitutes such service is warranted. Elliot, Bjelajac, Fallot, Markoff, and Reed (2005) have defined trauma-informed service and provided 10 principles to guide such service for women. Their recommendations are based on data gathered in the Women, Co-occurring Disorders and Violence Study (WCDVS), which was funded by the Substance Abuse and Mental Health Services Administration (SAMHSA). Elliot and colleagues (2005) defined trauma-informed services as "[T]hose in which service delivery is influenced by an understanding of the impact of interpersonal violence and victimization on an individual's life and development" (p. 462). To this end, trauma-informed service should exist at every level of a service-providing organization so that each interaction between the client and the organization is congruent with the process of recovery and minimizes the possibility that clients will be retraumatized. The authors suggest that since organizations cannot tell who is a trauma survivor and who is not, best practices should treat all women who seek services as if they are trauma surivivors and implement procedures that support the healing from trauma.

Elliot et al. (2005) developed the principles for trauma informed services for women, using site-level and cross-site evaluations, semistructured questionnaires, and reports and

activities from the trauma workgroup of the nine-site WCDVS. A full description of each principle is provided in Elliot et al.'s article. For the purposes of the present study, these principles are understood as a guide for best practices to be considered when treating traumatized Latinas. These principles are summarized below, stating that trauma-informed services should:

1. Recognize the impact of violence and victimization on development and coping strategies
2. Identify recovery from trauma as a primary goal
3. Employ an empowerment model
4. Strive to maximize a woman's choices and control over her recovery
5. Based in a relational collaboration
6. Create an atmosphere that is respectful of survivor's need for safety, respect, and acceptance
7. Emphasize women's strengths, highlighting adaptations over symptoms and resilience over pathology
8. Minimize the possibilities of retraumatization
9. Strive to be culturally competent and to understand each woman in the context of her life experiences and cultural background
10. Solicit consumer input and involve consumers in designing and evaluating services

A wide range of group and individual trauma treatments is available, a review of which is far beyond the scope of this study. The focus, therefore, is narrowed to group trauma treatment for women and futher narrowed to focus on such groups for Latinas. Specifically, this section will describe the treatment modality utilized in the present study, which is *Saber Es Poder* (Knowledge is Power), a cultural and linguistic adaptation of the Trauma Recovery and Empowerment Model (TREM) designed for Spanish-speaking Latinas. TREM is a group

intervention designed to meet the specific needs of female trauma survivors and address a wide range of posttraumatic sequelae (Fallot & Harris, 2002). The TREM model was designed and refined, with consumer input, at Community Connections, a mental health and substance abuse service organization in Washington, D. C. The clinician's TREM manual was published in 1998 (Harris, 1998) and a description of the treatment and discussion of the conceptualization and implementation is found in Fallot and Harris (2002). The summary of TREM that follows is drawn from Fallot and Harris's (2002) publication.

TREM is founded on four basic assumptions:

1. Some current dysfunctional behaviors and/or symptoms may have originated as legitimate coping responses to trauma
2. Women who experienced repeated trauma in childhood were deprived of the opportunity to develop certain skills necessary for adult coping
3. Traumatic events, specifically sexual and physical abuse, sever core connections to one's family, one's community, and ultimately to one's self
4. Women who have been abused repeatedly feel powerless and unable to advocate for themselves (Fallot & Harris, 2002, pp. 476-477)

During the development of Saber Es Poder (SEP), Wallis, Amaro, and Cortes (2012) addeda fifth assumption to the above. They noted that Latinas may have unique experiences of trauma in unique contexts, which would require a different approach to specifically address these needs. Therefore, they added the following fifth assumption:

5. Cultural realities may need to be effectively addressed during trauma recovery in order to maximize treatment gains for ethnocultural women.

Finally, a sixth assumption was added to reflect the growing understanding of the importance of incorporating the body into trauma recovery. The sixth assumption states:

6. Healing the body may be a necessary part of a complete recovery (F. Wallis, personal communication, June 10, 2011).

TREM evolved as a skill-based curriculum that addressed areas in which traumatized women had not had the opportunity to develop the skills and knowledge needed for their recovery. It is a 33-week group intervention comprised of 75-minute sessions that focus on a designated topic each week over consecutive weeks. The group is led by a clinician trained in the model, discussion questions and exercises are provided, and participants are encouraged to share their experiences and participate to their own comfort level. To support the women in feeling safe and promote a sense of community, the groups are for women only and are led by females. The model is broken into three broad modules: empowerment, trauma education, and skill-building.

A major focus of TREM is the development of recovery skills. This is a present-focused approach and the skills are woven throughout the sessions. The eleven areas of skill focus are:

1. Self-awareness
2. Self-protection
3. Self-soothing
4. Emotional modulation
5. Relational mutuality
6. Accurate labeling of self and others
7. Sense of agency and initiative-taking
8. Consistent problem-solving
9. Reliable parenting

10. Possessing a sense of purpose and meaning

11. Judgment and decision making (pp. 478-480)

TREM was developed to address the complex nature of posttraumatic problems and meet the needs of trauma survivors. Fallot and Harris (2002) noted six major areas in which trauma survivors may encounter difficulty that are addressed by the TREM approach:

1. Difficulties with emotional control/Affect dysregulation
2. Emotional numbness and dissociation
3. Difficulties maintaining safe, stable, and mutually satisfying interpersonal relations
4. Depression
5. Difficulties in accurate appraisal of self and the world
6. Substance abuse

The techniques employed to address these areas are cognitive restructuring, skills training, psychoeducation, peer support, and contained exposure. In TREM, it is not emphasized that participants need to recount and share their trauma narratives in detail. Their participation is encouraged to whatever level they feel comfortable, and leaders are trained in containing these exposures to trauma to be brief, focused, and related to the goals of the session. A participant, therefore, would be able and allowed to complete the group without ever describing the nature of her traumatic experience or giving any details about it if she did not wish to do so.

TREM and SEP are currently listed in SAMHSA's National Registry of Evidence Based Programs and Practices (NREPP) based on the empirical support that has been collected since they were developed (http://nrepp.samhsa.gov). A meta-analysis of data collected in the multi-site WCDVS compared trauma-informed interventions, one of which was TREM, to treatment as usual (Morrissey et al., 2005). Women in the intervention group showed statistically significant

improvements in mental health and trauma symptoms as compared to the treatment as usual group. Interestingly, the women with more severe symptoms at the baseline period showed proportionally more clinically significant change than those with less severe symptoms. Another study examined the effects of TREM, modified for use in a residential substance abuse program (Toussaint, Van De Mark, Bornemann, & Graeber, 2007). These authors found that, compared to treatment as usual, women in the TREM group showed greater improvements in mental health and dissociative symptoms, sense of personal safety, and coping skills. Effect sizes ranged from .38 to .63. Other unpublished studies are referenced in the NREPP entry for TREM but could not be retreived for review.

Strong evidence suggests that TREM is an effective approach for addressing the sequelae of trauma in women who have experienced violence or abuse. In an analysis of data from the WCDVS, Amaro, Larson, Gampel, Richardson, Savage, & Wagler (2005) examined the differences between White, Black, and Latina women on a number of factors. They found that, compared to White women, Black and Latina women showed much higher levels of social vulnerability, as measured by factors such as income, employment, poverty, education, and housing. They also found that Black and Latina women were more likely to be exposed to community violence and Latinas were more likely to be involved with the criminal justice system, although Black and Latina women did not show higher levels of clinical symptoms than White women. They concluded that racial and ethnic factors should be considered in the design and delivery of services for women with co-occurring disorders and histories of trauma.

A model that has been developed to explicitly address the needs and cultural context of Latinas who have experienced violence or abuse is *Saber Es Poder* (Harris, Wallis, Amaro, & Cortés, 2006), a Spanish language and Latino cultural adaptation of TREM. SEP was developed

based on the same underlying assumptions, structure, and interventions as TREM; however, although it is published in Spanish it is important to emphasize that it is more than just a language translation of TREM from English into Spanish. Latino cultural values such as emphasis on family (*familismo*) and gender roles *(marianismo* and *machismo*) are integral to the model and discussion questions and exercises are designed to specifically address the experience of Latinas. It also includes the use of culturally meaningful and relevant elements such as *dichos* (proverbs or sayings) and art by Mexican artist Freida Kahlo. SEP has a slightly different structure than the original 33-session TREM, with 25 sessions of 75 minutes each. Like TREM, each session includes a clear objective, discussion questions, and experiential activities. It also includes a session on HIV risk and prevention, as this was judged to be an important issue relevant to the population for which it was designed. Outcome studies have not yet been published for SEP; however, it is reasonable to assume that given the strong support for TREM, it is likely to have similarly positive outcomes, as it shares the same basic assumptions, techniques, and approach to treatment.

Both TREM and SEP meet the guidelines for trauma-informed treatment outlined by Elliot et al. (2005). Rather than pathologizing the participants' responses to traumatic events in their lives, these models acknowledge the difficulties faced by female trauma survivors while educating participants that many of the behaviors, patterns, and ways of responding to the world evolved as legitimate coping responses to trauma that may no longer be effective.

The creation of SEP was an important step on the road to providing culturally and linguistically appropriate trauma-informed treatment for Spanish-speaking Latinas who have experienced abuse. It provides a trauma-treatment group intervention that is grounded in an empirically-supported model and is accessible to monolingual Spanish-speaking women or

bilingual women who prefer to receive mental health treatment in Spanish. Furthermore, the fact that it is a group intervention makes it potentially more accessible and affordable to low-income women, as group therapy is generally less costly than individual treatment. Group therapy also provides the added benefit of giving participants a sense of community. Clinical experience has shown that women in the group often forge friendships that extend beyond the group itself, staying in contact and meeting socially between sessions. TREM was developed based on the existing research regarding the complex effects of trauma and uses group therapy techniques such as psychoeducation, skill building, cognitive restructuring, and contained exposure to address trauma-related difficulties (Fallot & Harris, 2002).

TREM and SEP have many strengths to recommend them. However, one area that was not explicitly addressed in the development of TREM and subsequently, by SEP, is the physiological manifestation of trauma. As discussed above, these include somatic symptoms not explainable by medical conditions, certain characteristic neurobiological changes such as a shift towards sympathetic dominance of the nervous system, and changes in the endocrine system such as low baseline cortisol levels. As research continues to more fully explain the ways in which trauma affects the minds and bodies of those who experience it, it is important that treatment methods also evolve to incorporate the information provided by research and seek to ameloriate the effects of trauma in the most comprehensive and appropriate way possible. One proposed way to do so is to incorporate trauma-sensitive yoga with the best practice of trauma-informed group psychotherapy provided by the TREM model.

Yoga and Trauma

Yoga, to many Westerners, is synonomous with a form of physical exercise involving a series of postures. Many people practice yoga today as a way to increase fitness and improve

their health; however, the roots of yoga are somewhat different from the way it is often practiced in the Western world. Yoga has been practiced in what is present day India and Pakistan for thousands of years and evolved as a spiritual practice influenced by Hinduism, Buddhism, and Jainism (Emerson & Hopper, 2011). The first known written guidelines for yoga that have survivived into modern times are the *Yoga Sutras*, written by Patanjali in about 200 C. E. (Weintraub, 2004). The *Yoga Sutras*, as described by Weintraub, were meant to be a path to overcoming obstacles to inner awareness. The *Yoga Sutras* comprise a type of prescription for overcoming these obstacles, which are disease, dullness, doubt, carelessness, laziness, addiction, false perception, failure to reach firm ground, and instability. The "eight limbs" of yoga prescribed by Patanjali were *yama* (restraint), *niyama* (observances) , *asana* (postures), *pranayama* (breath control), *pratyahara* (withdrawal of the senses), *dharana* (concentration), *dhyana* (absorption), and *samadhi* (cosmic consciousness). Yoga originally evolved as a means to developing self-awareness and not merely as a form of physical exercise. The term "Hatha Yoga" refers specifically to the physical postures of yoga, the element with which most Westerners are familiar, and includes many styles of yoga including Iyengar yoga, restorative yoga, Ashtanga yoga, Anusara yoga, Viniyoga, Kripalu yoga, Bikram yoga, and Kundalini yoga (La Forge, 2005).

Yoga has experienced a dramatic growth in the West in recent years and increasing attention has been paid to it as a form of Complementary and Alternative Medicine (CAM) for a variety of medical and mental health conditions (Khalsa, 2004; Salmon, Lush, Jablonski, & Sephton, 2008). Salmon et al. (2008) noted that, with the exception of Kabat-Zinn's Mindfulness Based Stress Reduction, yoga has received much less attention in the field of clinical psychology than in other fields, suggesting that this may be due to psychologists' lack of

training in yoga or tendency to view it largely as a form of exercise rather than a treatment for illness. Some studies have looked at yoga as a treatment for psychiatric illnesses. In a systematic review, Kirkwood and colleagues identified and reviewed eight published studies invesitgating the application of yoga treatments for a variety of anxiety disorders including Obsesive-Compulsive Disorder (OCD), phobias, and examination anxiety, most of which reported positive results for yoga (Kirkwood, Rampes, Tuffrey, Richardson, & Pilkington, 2005). However, the authors concluded that due to the diversity of conditions addressed and the poor methodology used in many studies, it was not possible to definitively state that yoga is effective in treating anxiety. Another study reviewed five randomized controlled trials of yoga for depression and found that yoga may have potentially beneficial results (Pilkington, Kirkwood, Rampes, & Richardson, 2005). However, Pilkington et al. noted that that variety of yoga interventions used, the range of severity of depression treated in the studies, and the lack of reporting of study methodology should lead to cautious interpretation of the results.

Very little research has systematically examined the application of yoga as a treatment for PTSD or other trauma-related problems. Most of the research being done in this area is the result of the work of The Trauma Center at the Justice Resource Institute in Boston, Massachusetts (www.traumacenter.org). Bessel van der Kolk, MD, is the director of The Trauma Center and a leading trauma researcher (see Trauma, PTSD, and Abuse and Trauma in the Mind and Body sections above for a summary of his research). Van der Kolk's interest in yoga as a treatment for trauma stemmed from his research showing that traumatized individuals have low heart rate variability (HRV) and the many claims that yoga can improve HRV, which had not been previously scientifically supported (Emerson & Hopper, 2011). This led to the eventual creation of a trauma-sensitive yoga program at The Trauma Center, where much of the

current knowledge about the process and outcome of implementing yoga with trauma survivors was developed.

Van der Kolk (2006) reported the outcomes of two small studies investigating the use of yoga as a treatment for traumatized individuals. In one study, HRV and PTSD symptomatology were measured over eight hatha yoga sessions in a group of normal yoga controls and a PTSD group. Van der Kolk reported significant changes in HRV in the control group and significant improvements in PTSD symptomatology, as measured by the CAPS. He reported that yoga significantly improved outcomes on the reexperiencing and avoidance scales of the CAPS but not on the hyperarousal scale in the PTSD group. Due to movement artifacts during the resting phase of yoga, HRV measurements were compromised in the PTSD group and changes were not reported. In the same publication, van der Kolk referenced a second pilot study of yoga in which participants were randomly assigned to group therapy based on Dialectical Behavioral Therapy (DBT) or to 75 minute sessions of hatha yoga. In comparison with the DBT group, van der Kolk reported that the yoga group showed significant decreases in the frequency of intrusions and the severity of hyperarousal symptoms between time 1 and time 2. Although these results came from small pilot studies, they show initially promising results for the use of yoga as a treatment for trauma-related problems.

The other research available, limited as it is, shows similarly promisisng results. Brown and Gerbarg (2005a) proposed that *Sudarshan Kriya Yoga* (SKY), a yogic breathing technique involving the components of *ujjayi* (victorious) breath, *bhastrika* (bellows) breath, chanting of "om," and *Sudarshan Kriya*, a unique form of cyclical breathing at varying rates, could improve the conditions of stress, anxiety, depression, post-traumatic stress, and stress-related illnesses. They presented a neurophysiological model hypothesizing that this is accomplished through

increased parasymptathetic dominance of the nervous system, calming of the stress response, a release of neuroendocrine hormones, and thalamic generators (Brown & Gerbarg, 2005a). In a second publication, Brown and Gerbarg (2005b) reported findings on the use of yoga and SKY for a variety of disorders, including PTSD. They referenced four unpublished pilot studies from a yoga program for the treatment of Vietnam veterans with PTSD, reporting improvements on a variety of outcome measurements. They noted that greater results on a broader range of outcomes were found when yoga practice included breathing and meditation exercises in addition to the posture practice alone.

Although the results published are from small pilot studies, they indicate that yoga may be a useful component of treatment for PTSD or other trauma-related problems. The researchers conducting these studies both cited the effects of yoga on the central nervous system as reasons for including it in trauma treatment. As described in the Trauma in the Mind and Body section, trauma affects the capacity for the three parts of the human brain to function in harmony to effectively process information, emotions, and sensory stimuli. Whereas traditional talk therapy typically relies on top-down processing mediated by the use of language and cognitive function, neocortical functions, yoga and other sensorimotor approaches to therapy also integrate elements of bottom-up processing through movement to assimilate sensorimotor reactions that are frequently triggered in traumatized individuals (Ogden et al., 2006). Furthermore, yoga or other somatically-oriented therapies may assist individuals in learning to recognize the somatic signs of hyper- or hypoarousal and make adjustments accordingly, allowing them to stay within the window of tolerace and eventually widening it (Ogden et al., 2006). Van der Kolk (2006) concluded that effective treatment for trauma needs to include three elements: learning to tolerate feelings and sensations through the development of interoception, learning to modulate arousal,

and learning that even though trauma often involves helplessness, it is essential to engage in taking effective action. The integration of yoga with group psychotherapy for trauma appears to meet these objectives.

The question arises as to whether or not yoga offers any unique benefits as compared to other forms of physical exercise and/or relaxation practices that do not involve yoga. Streeter and colleagues (2010) compared a 12-week yoga intervention to a metabolically matched 12-week walking intervention, and found that yoga participants experienced greater improvements in mood and anxiety than walking participants. In a study of heart rate variability comparing cyclic meditation, including yoga postures, and supine rest, Sarang and Telles (2006) found changes in heart rate variability sugesting a shift to parasympathetic dominance following cyclic meditation that did not occur with supine rest. These results suggest that there is a factor specific to yoga that affects the sympathetic/parasympathetic balance that is not present in simple rest. Although there are few studies comparing yoga to aerobic exercise and relaxation in addressing trauma-related effects and further research is needed in order to draw definitive conclusions, these studies seem to suggest that there is an element or elements unique to yoga that has an effect above and beyond that of simple exercise or rest.

Based on the work at the Trauma Center, Emerson and Hopper (2011) published *Overcoming Trauma Through Yoga: Reclaiming Your Body*. This book includes a discussion of traumatic stress, yoga and trauma-sensitive yoga as well as guidelines for traumatized individuals and the clinicians and yoga instructors who work with them. For a more detailed discussion and specific yoga postures and breathing for trauma, refer to chapters six and seven of *Overcoming Trauma Through Yoga*. It is important to differentiate between the yoga that may be taught in a gym or fitness center with the trauma-sensitive yoga used in a therapeutic setting.

What follows is an outline of the principles and practice of trauma-sensitive yoga for clinicians as described by Emerson, Sharma, Chaudhry, and Turner (2009).

Emerson et al. (2009) focused on five areas of trauma-sensitve yoga practice: environment, exercises, teacher qualities, assists, and language. The main concern in developing a trauma-sensitive yoga environment is one in which participants feel safe and welcomed. To create such an environment the authors recommend covering mirrors and outside windows, minimizing external noise, keeping the light soft but not too dark, preventing interruptions or surprise visitors, and ensuring that there are enough props for all the students. The exercises recommended for a trauma-sensitive yoga class should include a gentle warm-up, a series of yoga postures, and a final resting pose. Emerson and colleagues emphasized that throughout the postures, students should be encouraged that if they feel uncomfortable for any reason, they may modify the posture until they are comfortable or simply rest. Students should be given control over their experience and encouraged to listen to their bodies, learning to identify how they feel and respond accordingly.

Emerson et al. (2009) emphasized that the most important quality of a trauma-sensitive teacher is to be willing to listen to the participants and make modifications if necessary. They also stated that the teacher should not attempt to be an expert, telling students what could be hard for them or, conversely, what should feel good. Emerson and Hopper (2011) explained that the work of a trauma-sensitive yoga teacher is to offer opportunities within a safe, predictable environment but not to dictate what the students' experience should be. The language that teachers use is especially important. The "language of invitation" described by Emerson et al. (2009) and used in the Trauma Center yoga program invites students to try something rather than telling them to do something. The emphasis is on students listening to their own bodies rather

than trying to please the instructor or do things a certain way. The language of invitation uses phrases such as "if you like" and "when you feel ready" to reinforce the students' right, at any moment, to choose the nature of their own experience.

The authors also discuss assists, the ways in which a yoga teacher might help a student to modify a posture. They generally recommend against the use of physical assists, which involve touching the student's body, and encourage the use of verbal assists, which are suggestions to help the student make a posture more comfortable or accessible. If the teacher believes a physical assist would be helpful for safety or other reasons, the Trauma Center maintains that the assist should always be offered and then given only with the student's permission, with the teacher respecting the student's wish not to be touched if this is the case (Emerson & Hopper, 2011).

Although both trauma-sensitive yoga and other types of yoga may use similar postures and breathing exercises, the process and goals are not necessarily the same. Trauma-sensitive yoga focuses on helping the student to learn to listen and attend to his or her internal state. An important element of trauma-sensitive yoga is that students may learn the skills of distress tolerance: being able to stay with an uncomfortable sensation and know that it will come to an end. This is facilitated in trauma-sensitive yoga through the use of "countdowns" during postures, giving the students a clear sense of when the experience will end (Emerson & Hopper, 2011). In addition to the physiological and neurological changes that may result from the practice of yoga, the experience of appropriate trauma-sensitive yoga will ideally help traumatized individuals to become more empowered to make choices that benefit themselves and develop a gentler relationship with their bodies.

For women who have been physically or sexually abused, the relationship to one's own body may be complex. Clinical experience suggests that a traumatized woman might see her body as the enemy because it was the vehicle through which the abuse was carried out. Conversely, she might feel utterly detached from her body and unaware of or unable to interpret sensations such as heat, cold, and hunger. I hypothesize that trauma-sensitive yoga will be a beneficial adjunct to treatment in two ways. First, it may help to regulate the bodily systems that become dysregulated in response to trauma. This may include a regulation of the arousal response, physiological numbing, and the sympathetic/parasympathetic balance. Furthermore, at the level of subjective experience, it may help traumatized women listen to and learn to feel safe in their bodies while giving them concrete skills to use in their day to day lives.

The goals and processes of trauma-sensitive yoga are very much in line with those of TREM and SEP. Both trauma-sensitive yoga and TREM/SEP focus on the empowerment of the individual. Both approaches emphasize empowerment through the particpant's right to choose. In SEP, for example, a woman is given the right to share as little or as much of her trauma story as she wishes. In yoga, a woman is given the right to enter a posture to whatever level she feels comfortable. These parallel processes are mutually supportive and will lead a woman to feel more in control over her mental, emotional, and physical states. Both modalities recognize that trauma survivors have developed coping mechanisms that may be causing them difficulty but do not pathologize these efforts to cope. Mechanisms such as hypervigilance or "numbing out" the body are viewed as means for survival and the participants are gently invited to explore other ways of coping that may help them to be more effective in their lives. Regarding the skills emphasized in TREM and SEP, yoga addresses at least five of the eleven skill areas (see p. 24):

self-awareness, self-soothing, emotional modulation, sense of agency and initiative taking, and judgment and decision making.

While the integration of TREM and trauma-sensitive yoga for English-speaking women would likely be useful in addressing trauma-related problems for that group, the focus of the current study is the implementation of this model with Spanish-speaking Latinas. I do not propose that this model will somehow be "more" beneficial for this group than it would be for non-Latinas or English speakers. However, this integration offers the opportunity to provide and test an innovative mind-body treatment modality for a population that is greatly in need of services and less likely to have access to them. Too often, psychological treatments are developed for majority populations and subsequently applied to minority groups without modification or cultural considerations. By implementing and examining outcomes of this treatment with this population, we are in a position to better assess how well it meets their needs and is useful in helping them to recover and function in a healthy way.

Statement of the Problem

Latinos are the largest and fastest growing ethnic or racial minority group in the United States (U. S. Census Bureau, 2010), yet they are among the least likely to access appropriate mental health care (U. S. DHHS, 2001). Research consistently shows that they are at higher risk for developing PTSD in their lifetime than non-Latino Whites (Galea et al, 2004; Marshall et al., 2009; Pole et al., 2005). Other research shows a similar pattern for women in general; although men are more likely to experience a traumatic event in their lives, women are much more likely to develop PTSD (Tolin & Foa, 2006). In addition to PTSD, there are a number of other problems that may affect the individuals whose lives are touched by trauma, such as complex posttraumatic states (Briere & Spinazzola, 2005) sometimes referred to as DESNOS (Herman, 1992; van der Kolk et al., 2005), other psychiatric disorders (Solomon & Davidson, 1997), and somatic symptoms (Escalona et al., 2004; van der Kolk et al., 1996). Interpersonal trauma such as physical or sexual abuse has complex and debilitating effects, especially when the abuse begins in childhood and lasts over a number of years (Briere & Runtz, 1988).

Culturally and linguistically appropriate services for Spanish-speaking Latina women who have been traumatized through violence and abuse are essential. One model that has been

developed to this end is *Saber Es Poder*, a manualized cultural and language translation of the TREM treatment (Harris et al., 2006). Although the TREM approach has a body of empirical support indicating that it improves outcomes on a number of trauma-related variables (Morrissey et al., 2005; Touissant et al., 2007), it does not explicitly address the physiological changes that occur following trauma such as dysregulation of the nervous system and bodily numbing (van der Kolk & Saporta, 1991). I hypothesized that the SEP model could be even more beneficial to participants or address a broader range of difficulties through the inclusion of a trauma-sensitive yoga component. The goal of implementing and testing this model for Spanish-speaking Latinas is to address the mental health needs of an underserved population through the use of innovations in clinical practice founded on current scientific research regarding trauma, yoga, and trauma-informed treatment.

Purpose of the Study

The purpose of the study was twofold. Its first purpose was to pilot-test a model for integrating the *Saber Es Poder* trauma treatment and trauma-sensitive yoga, with the hope that the model can eventually be disseminated and recommendations can be made to other clinicians who wish to utilize it. Second, I intended to gather empirical outcome data in several domains with the hope that this information would support the hypothesis that the integrated model is effective in healing the effects of trauma for the women who participate. I specifically intended the study to reach a growing but underserved population in an effort to better understand how this population can be effectively served.

The guiding research questions were the following:

1. Did participants in the group show improvements on a comprehensive meausre of posttraumatic symptoms?
2. From the participant's perspective, how did the model work to meet their needs, including addressing the physiological aspects of posttraumatic problems?

Because this was an uncontrolled study, it was not possible to compare the SEP/yoga integrated model with other forms of treatment in regards to outcomes. However, given the pilot nature of this project, my hope was that by gathering information from the group from the participants in

qualitative interviews, the model will continue to improve over time and eventually be supported in future research, including controlled studies.

The hypotheses were as follows:

1. Participants will show improvements on a comprehensive measure of posttraumatic problems.
2. Benefits, challenges, and limitations of this model will be better understood by the end of the group and this information will be useful to future clinicians wishing to implement the model.

Methods and Procedures

Participants

Participants were recruited from members enrolled in an integrated *Saber Es Poder* and trauma-sensitive yoga group in the Portland area. Following their enrollment in the group, they were invited to participate in the research study. This group was not conducted expressly for the purposes of research; rather, it was a group in the community that was implementing the treatment model of interest and represented a convenience sampling opportunity for the present study. The group was advertised for any women who wanted to learn more about recovering from the effects of trauma, including those who have had a traumatic experience and may be experiencing some distress or dysfunction such as PTSD, anxiety, depression, or other trauma-related problems. Women in the group were informed that a voluntary research study was taking place. All group participants who met study eligibility criteria were invited to participate.

To remain congruent with the principles of trauma-informed treatment (Elliot, Bjelajac, Fallot, Markoff, & Reed, 2005), the voluntary nature of the study was emphasized at every step of the recruitment process and it was made clear that the decision to participate in the research, or not, would in no way affect the services they receive. Participants' mental health providers or mental health service organizations in the Portland area referred women to the group.

The group started with 13 members, 9 of whom expressed interest in participating in the research project after they were invited. Of these 9 members, 5 participated in the pre-test data collection and 4 participated in the post-test data collection. .

A description of the treatment protocol is described below.

Treatment Model

The integrated *Saber Es Poder* and trauma-sensitive yoga model used here was a collaboration beween Laya Yoga, Conexiones and the Center for Trauma Recovery, and Fabiana Wallis, Ph.D., co-author of the SEP manual. The treatment group examined in this study was an abbreviated version of the full 25-session *Saber Es Poder* manualized protocol. It met weekly for 10 weeks, and each session included group therapy as presented in the Saber Es Poder manual and trauma-sensitive yoga. Sessions took place at a private practice in the Pacific Northwest that specializes in Latino mental health and trauma recovery. The group was facilitated by a bilingual and bicultural licensed clinical social worker who was trained in the SEP model and a bilingual and culturally competent yoga therapist with a master's degree in social work. The yoga therapist is registered with the Yoga Alliance, a professional organization that certifies yoga teachers who have met designated training standards, is a member of the International Association of Yoga Therapists, and was trained in trauma-sensitive yoga through The Trauma Center (see Yoga and Trauma section of literature review).

The *Saber Es Poder* manual includes 25 sessions of 75 minutes each (see Appendix A for a list of session topics and a summary of session goals). The group from which data was gathered, however, included 10 sessions and the time of each session was extended to two hours. The group was shortened from the original 25-week protocol to 10 weeks based on feedback from prior SEP group participants that 25 weeks was too long of a commitment for many

participants and was an impediment to participation. Shortening the time to 10 weeks was done with the intention of allowing more women to participate and reduce attrition rates. The longer session time was for three reasons. First, it acknowledged the realities of the busy lives of the participants, many of whom have jobs and children. The extra time allowed them to arrive, get their children to the childcare group, and enter the space where the therapy group is held. It also reflected the cultural value of *personalismo,* which emphasizes personal connection and relationship to others. In line with this value, this extra time allowed the participants and facilitator to greet one another and engage in the friendly chat (*platicar*) that exemplifies *personalismo*. Finally, as a part of the integrated SEP and yoga model, the longer sessions allowed for sufficient time to include both the group (*circulo)* and the yoga practice. The yoga curriculum for each week was designed to reflect the topic presented in the SEP group, creating a sense of continuity and allowing the participants the opportunity to explore the physical aspect of the topic.

The following SEP themes were covered in this group: Introduction/What it Means to be a Woman (SEP session 1), Physical Boundaries (SEP session 3), Emotional Boundaries (SEP session 4), Self Esteem and Self-Care (SEP session 6), The Dynamics of Abuse (combination of SEP sessions 11 – 14), The Body Remembers What the Mind Forgets (SEP session 10), Self Destructive Behaviors (SEP session 19), Communication (SEP session 18), Blame, Acceptance, and Forgiveness (SEP session 20), and Graduation/Closing Ritual (SEP session 25). Each group included a review of SEP session goals and questions pertaining to the week's topic, discussion of the topic, and yoga exercises including mindfulness, breathing, meditation, or movement. Some groups also included activities outlines in the SEP manual. It is important to note that, in this particular group, facilitators included relatively little in the way of *asana* (postures),

focusing instead on other elements of yoga including *pranayama* (breath control), *pratyahara* (withdrawal of the senses), and *dharana* (concentration), and gentle mindful movement. Within each session, facilitators might move back and forth between discussion, movement, breathing, and meditation all related to the same theme. The goal of fully integrating the group therapy and yoga components with each session was to increase continuity and facilitate participants' understanding of the connection between trauma in the mind and the body.

Informed Consent and Screening Procedures

Participants were women age 18 or over. Before entering the group they participated in a 90-minute mental health intake interview, including assessment of psychosocial history, presenting concern, substance abuse, and risk factors, including active suicidal or homicidal urges or active psychotic symptoms. Alcohol or drug use or abuse concerns were not automatic exclusion criteria; however, a few substance-related issues did result exclusion. First, group facilitators referred women who were *primarily* seeking substance abuse treatment to more appropriate local treatment options, as this is not the primary focus of SEP. Second, facilitators referred women with substance abuse issues requiring a level of care beyond what could be provided in an outpatient setting to agencies that could provide the appropriate level of care. For example, a woman in need of medically supervised detoxification and withdrawal services would not be appropriate for SEP and would be referred to other services. Finally, facilitators referred women whose substance abuse would have made it difficult or impossible for them to participate in the groups to other services. For example, if a woman could not commit to regularly attending sessions without being intoxicated, she would be not be eligible to participate in the group. Situations of current domestic violence were not an automatic exclusion criterion. However, a

level of crisis that would make it difficult or impossible for a woman to regularly attend and participate in the group resulted in referral to more appropriate crisis-intervention services.

Once members of Institutional Review Board approved the study, the group facilitators informed the women who had been screened and enrolled in the treatment group that a voluntary study was taking place and invited them to indicate if they were interested in obtaining further information regarding participation in the research study. Inclusion and exclusion criteria for the research study were the same as those described above for the group. One additional criterion was that women participating in the study must have identified that they were experiencing some sort of distress or dysfunction related to traumatic event or events in their lives. They did not need to meet criteria for PTSD, but they must report some level of trauma-related problems such as anxiety, depression, somatization, PTSD, *ataque de nervios*, complex trauma syndrome, or report that they have been victims of violence or abuse. All group participants who indicated interest in the research study met study criteria. The women who were interested provided their contact information and I contacted them via telephone to provide further information regarding the nature of the research and gave them the details of what would be involved in participation. I provided them with the opportunity to ask any questions regarding the study or their participation, and once I had answered any questions they had I asked if they would like to schedule a time to meet in person to review the consent forms and begin the interview process if they wished to do so.

After making the initial telephone contact with the women who indicated potential interest in the study, I met in person with the women who stated during the initial contact that they wished to participate. At the first meeting, I introduced myself and engaged in small talk before beginning the informed consent process. This is in keeping with the Latino value of

personalismo, which values the importance of interpersonal relationships. I hoped that participants would feel comfortable enough to ask questions or express concerns regarding any of the documents or the study in general, and therefore I sought to establish a personal connection before reviewing any documents. I asked if they had any follow-up questions from the telephone call and, if so, answered these questions. I briefly described what we would be doing in the meeting and provided them with a copy of the informed consent document. I verbally reviewed the document with the participant and asked if anything was unclear or if they had any questions before inviting them to sign it if they were in agreement. I also offered each participant a copy of the informed consent document to keep for herself. In addition to the informed consent, I provided them with a consent form for follow-up contact if they choose to withdraw from the research at any time and a consent form for audio recording of the interviews. One participant chose not to have her interviews audio recorded and, in that case, I took notes by hand documenting the content of our discussion.

Study participants completed two meetings with the researcher. The first meeting occurred within three weeks before or after the start date of the treatment group (Time 1). This allowed for some flexibility in scheduling but insured that the baseline data reflected, as accurately as possible, the women's status at the outset of the group. The second and final meeting occurred within three weeks before or after the end of the treatment group (Time 2). These meetings lasted approximately 45 to 75 minutes and took place at the location where the group was held or, if the woman preferred, in her home or another location where privacy could be assured. The offer to conduct the research interviews in the participants' homes was intended to make it easier for them to participate if they wished to do so, given that many of them have

children and other obligations and it may not have been easy for them to make additional trips to participate in the research.

At both time points participants completed a psychological measure assessing their status in several areas related to trauma (see Outcome Measures section below), an idiographic measure assessing body-related impacts of trauma, and a brief qualitative interview assessing their experience of participating in the group. If at Time 1 it appeared that a participant was unable to complete the written portion of the measures due to literacy challenges or other reasons, the researcher offered an alternative means for completion, such as through verbal administration. One participant indicated that she preferred a verbal administration of the measures, and in her case I read each item aloud and recorded her response on the answer sheet.

Outcome Measures

Due to the diverse nature of posttraumatic effects, I sought a measure that would assess participants on a wide range of symptoms. The Trauma Symptom Inventory (TSI) is a self-report measure developed by trauma researcher John Briere (Briere, 1995). The TSI includes 100 items, is estimated to require about 20 minutes to complete, and is written at approximately a fifth-to-seventh grade reading level. It includes three validity scales and ten clinical scales. The clinical scales are:

1. Posttraumatic hyper-arousal or anxious arousal, including jumpiness and tension
2. Depression, including sadness and hopelessness
3. Irritable affect or anger such as angry cognitions and behavior
4. Intrusive experiences such as flashbacks and nightmares
5. Posttraumatic defensive avoidance

6. Dissociative symptoms such as feelings of depersonalization, derealization, and numbing
7. Sexual distress including dysfunction and unwanted sexual thoughts
8. Dysfunctional sexual behavior such as promiscuity, risky sexual behavior, and using sexual behavior to attain nonsexual goals
9. Impaired self-reference including low self-esteem and identity confusion
10. Tension reduction behaviors such as self-mutilation, angry outbursts, and manipulative behaviors (Gebart-Eaglemont, 2001).

The TSI has strong psychometric properties, with studies showing mean internal consistency reliability estimates for the clinical scales ranging from .84 to .87 (Fernandez, 2001). The publisher has translated the TSI into Spanish and the Spanish version was used for the purposes of this study. The TSI does not indicate the presence or absence of psychiatric diagnoses. Instead, it is intended to assess the relative level of various facets of posttraumatic distress. The TSI does not ask about what specific traumatic event occurred. It is appropriate for the current study for two reasons. First, it does not require the woman to disclose or identify what type of trauma she has experienced. Second, because the study is open to women who identify as having experienced any type of traumatic event or events and subsequent distress, the general nature of the items in the TSI allows the participants to respond to any event or events in their lives that they identify as traumatic.

The second measure used was a brief idiographic self-report measure I developed for this study that I intended to assess the participants' experience of trauma-related bodily sensations and experiences such as tension, numbness, and ability to care for one's physical needs (See Appendices G and H). I also intended it to assess outcomes congruent with the goals of trauma-

sensitive yoga, such as being able to tolerate uncomfortable physical sensations and realize that they will come to an end. I developed this measure to assess the participants' experience of common trauma-related physical or physiological problems and yoga-based outcomes, as such a measure has not yet been published in Spanish to the researcher's knowledge. This measure contained 16 items, each of which the participant rated on a 5-point Likert-type scale ranging from 0 ("Completely Disagree") to 4 ("Completely Agree").

The third measure used was a brief semi-structured interview conducted by the principal investigator in Spanish. The questionnaire includes four questions assessing the participants' goals, expectations, concerns, and challenges faced as part of participating in the group (See Appendices C through F). The questions in the interview were designed to understand the qualitative experience of participating in the group, from the participants' perspective. Providing the participants the chance to respond qualitatively to prompts provided a richer understanding of what was working well in the model and what could be improved upon than could be gathered from quantitative outcome measures alone.

Data Analysis

Quantitative Data Analyses. All quantitative analyses were performed using Statistics Package for the Social Sciences Version 19 (SPSS). Following collection of all data, participants' TSI scores were calculated for each of the 10 subscales and the two validity scales. The idiographic measures were scored, with items reverse-scored as necessary. In the original research design, I planned to perform t-tests to assess for statistically significant change on the TSI and idiographic measure between Time 1 and Time 2; however, the sample size was too small for any inferential statistics to be meaningful. Therefore, I have provided descriptive statistics only. In order to detect a medium effect size with a p value of .05 in a two-tailed t-test,

the sample would have needed to include at least 128 participants. Given the exploratory nature of this study and the convenience sampling design, it was not possible to obtain a sample of this size.

Qualitative Analyses. All qualitative interviews were transcribed and translated from Spanish into English by the principal investigator. After the initial transcription, transcripts were reviewed to check for accuracy and then coded for major themes that emerged.

Results

Participant Demographics

A total of five participants enrolled in the research study. Of these, one completed the first interview only and four completed the first and second interviews. The average age of

participants was 41.8 years old. Participants were invited to self-identify their ethnicity, and two identified as Latina, one identified as Hispanic, one identified as Chicana, and one identified as Indigenous. Four identified Spanish as their first language, and one identified *Mixteco Bajo* (an indigenous language of Mexico) as her first language. Three participants reported that they were not working, and two reported that they were working part-time. Three identified as married or living with a partner, one identified as divorced, and one identified as single. Four of the five reported that they had had children, and the average number of children was 3.4. The average number of people living in the participant's household was 3.6. The average monthly income of participants was $1,720. All five participants named Mexico as their country of origin, and the average number of years living in the United States was 17.2. The average number of groups attended by participants was 7.5.

Quantitative Analyses

Trauma Symptom Inventory. Descriptive statistics for the 10 clinical subscales of the TSI are presented below, including means and standard deviations at the beginning of treatment (Time 1) and the end of treatment (Time 2). TSI subscale scores are T-scores calculated from raw scores and provide information about the respondent's score in comparison to the standardization sample, All subscales have a mean score of 50 and a standard deviation of 10. Scores of 65 or above are considered clinically significant.

Anxious Avoidance scale. Results indicated that the mean score at Time 1 was 63.00 (SD = 15.94) and the mean score at Time 2 was 57.75 (SD = 10.21). ***Anger/Irritability scale.*** The results indicated that the mean score at Time 1 was 59.25 (SD = 11.18) and the mean score at Time 2 was 53.75 (SD = 7.68).

Depression scale. The mean score at Time 1 was 66.00 (SD = 11.66) and the mean score at Time 2 was 59.50 (SD = 10.72).

Defensive Avoidance scale. The mean score at Time 1 was 64.00 (SD = 8.72) and the mean score at Time 2 was 60.25 (SD = 11.70).

Dissociation scale. The mean score at Time 1 was 59.00 (SD = 19.66) and the mean score at Time 2 was 57.00 (SD = 12.11).

Dysfunctional Sexual Behavior scale. The mean score at Time 1 was 60.00 (SD = 26.93) and the mean score at Time 2 was 58.00 (SD = 28.00).

Intrusive Experiences scale. The mean score at Time 1 was 66.25 (SD = 15.20) and the mean score at Time 2 was 58.25 (SD = 13.20).

Impaired Self-reference scale. The mean score at Time 1 was 58.50 (SD = 11.90) and the mean score at Time 2 was 56.00 (SD = 12.36).

Sexual Concerns scale. The mean score at Time 1 was 57.00 (SD = 20.75) and the mean score at Time 2 was 55.50 (SD = 21.69).

Tension Reduction Behavior scale. The mean score at Time 1 was M = 60.00 (SD = 12.98) and the mean score at Time 2 was 64.00 (SD = 24.66).

Idiographic body awareness measure. The mean score at Time 1 was M = 29.00 (SD = 16.08) and the mean score at Time 2 was 24.75 (SD = 9.43).

Qualitative Analyses

Participants' goals for the group at outset. Participants described a number of goals they had at the outset that they hoped their participation in the group would help them to achieve. These goals are presented in Table I below.

Table 1

Summary of Participants' Goals for the Group at Time 1

	Number of Participants Reporting
Recover/Improve Self-Esteem	2
Help/Connect With Other Group Members	2
Feel Empowerment as a Woman	1
General Self-Improvement	2
Letting Go of Resentment/Pain About the Past	2
Increased Independence	2
Be Stronger	1
Feel Happier/Better/More Content	1
Be a Better Mother	2

Participants' expectations for the group. Some participants reported that they did not have any specific expectations for the group, including how it would function or how it might help them to achieve their goals, and others did report holding expectations for the group. These expectations are summarized in Table 2.

Table 2

Summary of Participants' Expectations for the Group at Time 1

	Number of Participants Reporting

No Expectations	2
Relaxation Through the Practice of Yoga	2
Recognize Shared Experience of Trauma	3
Share Thoughts/Feelings	2
Improve Communication	1
Heal From Fears	1

Participants' concerns regarding participation in the group. The majority of participants reported that they did not have any concerns regarding their participation in the group at the outset. A few participants did express specific concerns. The results are presented in Table 3 below.

Table 3

Summary of Participants' Concerns About the Group at Time 1

	Number of Participants Reporting
No Concerns	3
Sharing in Group Before Ready	1
Pain During Yoga (Associated with Joint Problem)	1

Challenges anticipated. Four of the five participants who participated in the interview at Time 1 stated that they did not anticipate any challenges during their participation in the group. One participant noted that she anticipated it would be difficult to speak about painful experiences from her life in the group.

Goals met/not met by the group. Participants overwhelmingly reported that their participation in the group helped them to achieve the goals they had at the beginning. When asked whether there were any goals that were not met, many participants noted that the 10-week duration of the group seemed insufficient to allow them to achieve all of their goals. For example, one participant reported that she still felt resentment at the end of the group, but noted that it takes time to let go of this feeling. Another participant reported that not all of her difficulties or problems were resolved, but also noted that she did not expect full resolution during the time period of the group. One participant noted that she found the group helpful but it also left her with more questions. Most participants reported that the group satisfied their expectations, noting that the group functioned in the way that had been described to them and that it was what they had hoped for. A summary of the results is reported below in Table 4.

Table 4

Summary of Goals/Expectations Met by Group at Time 2

	Number of Participants Reporting
Goals/Expectations Met	4
Feel More Secure	2
Increased Self-Love/Self-Esteem	3
Realize Shares Experience of Trauma	3
Increased Understanding of Trauma	1
Feeling Calmer/Better	3
Connection With Other Group Members	2
Increased Awareness of Body/Breath	2
Increased Self-Compassion	2
Goals Not Met	0

Challenges encountered. Participants reported some challenges or barriers to participation that fell into two main categories: logistics/scheduling and participant characteristics. Comments regarding the attrition rate were mixed, with one participant expressing that they was glad the group was small by the end because she felt closer to the other participants, and another participant expressing that she wished the people who committed to the group had been more consistent in attending every week. One participant noted that it was hard for her when she shared about a difficult experience from her past and other participants commented that they had not been through a similar situation. These results are summarized below in Table 5.

Table 5

Summary of Challenges Encountered Group at Time 2

	Number of Participants Reporting
Logistic Challenges	3
Evening Hours	2
Weekday Meetings	1
Transportation Challenges	1
Participant Characteristics	3
Attrition Rate/Attendance	2
Participant Comments	1

Suggestions for future groups. Participants offered a number of suggestions for how to improve the group in the future, including several suggestions related to the logistics and scheduling of the group. These suggestions are summarized in Table 6 below.

Table 6

Suggestions for Future Groups

	Number of Participants Reporting
Longer Duration/Second Phase	4
Increase Advertising/Recruitment	1
Provide Visual/Video for Non-Readers	1
Indigenous Speaking Facilitator	1

Themes Related to Yoga. Themes related to the inclusion of yoga were woven throughout responses to all of the questions. Participants all reported that they felt comfortable with the practice of yoga, although two reported at Time 1 that they had little prior exposure to the practice. Although participants did not report expectations specific to the yoga component, at Time 2 many of them commented that the yoga helped them to feel better in their bodies, have more compassion and patience with themselves, and reduced their tension level. These statements are consistent with the goals of trauma-focused yoga to help participants have a friendlier relationship with their physical bodies and their own experiences. Two participants recalled specific yoga poses or exercises that they found particularly helpful. A number of participants also commented on the nonjudgmental nature of the facilitators, a goal that is in line with trauma-informed practice and trauma-sensitive yoga. For example, one participant noted that she was encouraged to walk around or sit still based on her needs in the moment, which she found helpful because sometimes she needed to do something different than what the group was doing.

General comments about the group. Participants were invited to make general comments about the group at the end of the interview at Time 2, and themes emerged regarding facilitator characteristics, participant empowerment, and predictability of the group. Regarding facilitator characteristics, many participants noted that the facilitators did a good job, were well organized, asked for and respected participants' needs, wants, likes, and dislikes, and did not make participants feel badly if they chose not to participate in a given activity. Regarding participant empowerment, several participants noted that they felt like they had a choice of whether and to what extent they wanted to participate in activities, did not have to do things that made them feel uncomfortable, and were encouraged to do what they needed to do in the

moment in order to feel comfortable (e.g., move around, walk). Regarding predictability of the group, participants commented that participants explained what was going to happen in each group and then followed the plan, with one participant commenting that this predictability helped to reduce her anxiety level.

Discussion

Although a major limitation of this study was its small sample size, some meaningful conclusions can be drawn about the potential effectiveness of the intervention model. Furthermore, the qualitative interviews provide insight into participants' subjective experience of the treatment model and potential improvements its implementation in future

Although the sample size was too small to allow for meaningful inferential statistics, descriptive statistics show that scores did decrease (improve) on 9 of the 10 subscales of the TSI and on the idiographic body awareness measure between Time 1 and Time 2, which was the expected direction of change. It is not possible to say that these changes were statistically significant or draw causal conclusions; much larger controlled studies are clearly required in order to draw these types of conclusions. However, the fact that changes were in the expected direction suggests that further such studies are warranted. Despite the inability to detect statistical significance, it is possible that these changes were clinically meaningful. This hypothesis is supported by the qualitative interview data, in which participants overwhelmingly reported subjective improvements on a number of domains. On two TSI subscales (Depression and Intrusive Experiences), the mean score moved from the clinically significant range (65 or above) to below the clinically significant range from Time 1 to Time 2. Due to the small sample size, this change should be interpreted with caution, but larger studies may indicate whether this trend appears in some or all of the subscales.

The themes that emerged from the qualitative interviews indicate that, in general, participants experienced the group as helpful in meeting their goals and reported a subjective experience of improvement in their emotional and interpersonal functioning. Participants elaborated upon a number of goals that they attained as a result of their participation in the group, many of which correlate to the session goals outlined in the *Saber Es Poder* manual.

Specifically, at the end of the group participants reported an improved sense of boundaries (goal of sessions 3 and 4), increased self-esteem and ability to self-soothe (goal of session 6), increased knowledge about trauma (goal of session 9), and increased understanding of the impact of trauma on the body (goal of session 10). Participants also reported a feeling of connection with the other women in the group and a decreased sense that they were alone in having experienced traumatic events, outcomes that are in line with the objectives of a group intervention. Furthermore, participants also reported increased awareness of their own bodies, including awareness of the breath, which is a major goal of the yoga component. The participants' reports also suggest that group facilitators were successful in embodying the goals of trauma-sensitive yoga and trauma-informed treatment, as they described the facilitators as respectful of their personal boundaries, empowering, predictable, and collaborative. Overall, participants' subjective reports indicate that the group was successful in meeting the objectives of the protocol and that participants reported improvements in a variety of domains.

It is noteworthy that many of the challenges encountered and suggestions for improvements to the group related more to logistics, such as scheduling and duration, than to the process of the group itself. In fact, participants' reports overwhelmingly indicated that the facilitators' style and the structure of the group helped them to feel empowered, respected, and safe. Although two participants reported that they had limited or no prior exposure to yoga, all participants reported that they felt comfortable with the inclusion of yoga in the model. These results suggest that the group succeeded in adhering to the guidelines established for trauma-informed treatment (Elliot et al., 2005). Regarding the logistical challenges, many participants commented that the time frame (a weeknight from 5:30 to 7:30 p.m.) was challenging, as they had to hurry to get to the group after work and arrived home after the group relatively late.

Participants' suggestions for mitigating this challenge included offering the group at an earlier time on weeknights or moving the sessions to weekend mornings. For future groups, it may be helpful to survey potential participants prior to the start of the group to ascertain the time frame that works best for the majority of participants in order to allow for greater participation and decrease attrition. Also regarding the logistics of the group, a clear theme that emerged from the interviews was a preference for a group longer in duration than 10 weeks. Several participants noted that, although participating in the group helped them to achieve the goals they had at the outset, they believe they would have received even more benefit if the group had continued past 10 weeks. The organizers of the group decided on an abbreviated format for the current group after having encountered difficulties in the past with the full 25-week *Saber Es Poder* protocol, specifically with attrition. These results suggest that a group longer in duration than 10 weeks but shorter than 25 weeks may be helpful in improving participants' outcomes while also addressing the concerns about 25 weeks being too long of a format for many participants in outpatient mental health treatment.

Recommendations for future research are twofold. First, it would be beneficial to conduct a study with a larger sample size, allowing for sufficient statistical power to detect significant changes from pretest to posttest. As part of future studies, it would be helpful to include chart reviews and interviews with the group facilitators in addition to participant interviews and administration of outcome measures. Chart reviews would allow for information to be gathered regarding participants' diagnoses and the nature of their traumatic experiences, such as whether they occurred in childhood or adulthood. With this information, data could be analyzed according to diagnosis and other factors to determine any differences in outcome according to these variables. Interviews with group facilitators would provide richer information

regarding the group process and facilitators' perceptions of participants' outcomes and process. Second, it would be beneficial to conduct a controlled study comparing the outcomes from a standard *Saber Es Poder* group to one utilizing the integrated psychotherapy and trauma-sensitive yoga treatment model of interest in the current study. This would allow for comparison of outcomes between the two models and illuminate any possible unique outcomes obtained by participants in the integrated model above and beyond those offered by the standard model. Results of the current study suggest that participants did experience some yoga-related outcomes, such as increased awareness of their bodies and increased awareness of the breath. To this researcher's knowledge, at the time of this study there was no available published measure designed specifically to assess for yoga-related outcomes such as the ability to tolerate physical sensations and know that they will end, the ability to feel safe in one's body, nonjudgmental awareness of physical sensations, and awareness of the breath. For this reason, the idiographic measure used in this study was created. It is possible that this measure failed to accurately tap into the types of changes expected from trauma-sensitive yoga, and therefore such changes were not found. As yoga moves more into the mainstream of psychological treatment in general and trauma treatment in particular, the development and standardization of such a measure may allow for greater accuracy in assessing the impact of incorporating a yoga practice as part of treatment. Other researchers (Kirkwood et al., 2005; Pilkington et al., 2005) have also cited methodological concerns as an impediment to establishing the effectiveness of yoga as an intervention for other psychological concerns. As yet, the question of whether or not yoga is effective as a stand-alone treatment for trauma and other psychological conditions has not been definitively answered. Until large-scale controlled studies are conducted, this is likely to remain the case. However, results of the current study do indicate that participants in this model subjectively experience the

integrated yoga/group psychotherapy model as helpful and beneficial, and carrying out further research in this area may help to quantify these subjective gains.

The prevalence of trauma and its impacts on individuals remains a significant problem and a public health concern, especially with Latino/a individuals who may disproportionately suffer its effects, including effects unique to this ethnic group, and lack sufficient resources with which to confront its impact. Further research seems to be warranted in finding and assessing ways with address the concerns of this group. Lessons learned from the current study support the implementation of such research on a larger scale and with a control group.

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Appendix A

Saber Es Poder Topics and Session Goals (English)

1. **Introduction: What Does It Mean To Be a Woman?**
    - Understand the format and agenda of the group
    - Each participant introduces herself to the rest of the group
    - Explore the personal and cultural significance of being a woman
    - Think about how being a woman has defined your life
2. **What Do You Know and How Do You Feel about your body?**
    - Learn more about the body, its rhythms, cycles, and human reproduction
3. **Physical Boundaries**
    - Better understand personal space
    - Develop a sense of how much or how little the participants control what happens to their own bodies
4. **Emotional Boundaries: How to Establish Boundaries and Ask for What You Want**
    - To be able to say "I want" something for myself and for no one else
    - To understand the difference between active and passive strategies to get what I wan and to prevent HIV and AIDS
    - To understand what it means to establish interpersonal boundaries
5. **HIV Prevention and Negotiation**
    - To identify the factors or precursors that lead to having risky sexual relationships
    - To learn to generate healthy options for having sexual relationships that are not risky
6. **Self Esteem and Self-care**
    - To start an inventory of your positive qualities
    - To examine how the opinions of other people affect how the participants feel

about themselves

- To develop an understanding of how abuse in your life affects your self-esteem
- To begin to understand what it means to comfort or calm yourself

7. **Intimacy and Trust**

- To understand more deeply what it means to be intimate with another person
- To understand what conditions help or harm trust, intimacy, and mutual understanding

8. **Sex with a Partner**

- To understand what it is to have a sexually intimate relationship with a partner
- To learn ways to respond to sexual advances

9. **Trauma Knowledge**

- To learn more about trauma and the role that it has played in the participants' lives
- To identify how they have managed the feelings associated with trauma

10. **The Body Remembers What the Mind Forgets**

- To identify how their feelings about their bodies are connected to their experiences of abuse
- To understand how current physical pain can be connected to abuse in the past

11. **What is Physical Abuse?**

- To be able to define physical abuse
- To understand the impact of physical abuse on the lives of the participants

12. **What is Sexual Abuse?**

- To be able to define sexual abuse

- To understand the emotional impact of sexual abuse

13. **What is Emotional Abuse?**

    - To learn to accurately identify emotional abuse
    - To identify how emotional abuse can/did have a large impact on one's life

14. **Abuse and Psychological or Emotional Symptoms**

    - To explore the connection between past abuses of the past and the intense feelings or dysfunctional behaviors of the present
    - To see how symptoms develop as a reaction to trauma

15. **Trauma and Addictive or Compulsive Behavior**

    - To begin to see connections between compulsive behaviors and sexual or physical abuse
    - To begin to see how dependence on drugs, alcohol, food, sex, or other things are abuses against the self

16. **Family Life in the Present**

    - To explore the relationships that the participants have today with their families and identify sources of tension
    - To begin to decide what types of relationships the participants would like to have with their family members and what types of relationships are feasible

17. **Decision-making: How to Trust Your Own Judgment**

    - To begin to evaluate and to understand the process of making decisions
    - To identify what things have caused the participants to cede their authority to make decisions

18. **Communication: How to Make Yourself Understood**

- Identify communication styles that are not effective
- Explore different communication styles to speak or express yourself more clearly

19. **Self-destructive Behaviors**

- Explore what precipitates self-abuse
- Share their self-destructive behaviors in a non-shaming and non judgmental atmosphere
- Identify alternative responses to self-destructive behaviors

20. **Blame, Acceptance, and Forgiveness**

- To explore the concepts of blame and responsibility
- To evaluate the roles of acceptance and forgiveness in the recovery process

21. **When You Feel Out of Control**

- To learn to put words to reactions during an emotional storm
- To begin to recognize the precursors (causes or reasons) and the consequences of feeling out of control
- To begin to consider ways to moderate the emotions

22. **Abuse and Relationships**

- To identify problematic and healthy patterns in relationships
- To relate the abuse of the past with the interpersonal difficulties of today

23. **Relationships**

- To learn about the development and stages of relationship formation
- To identify obstacles that impede the formation of healthy relationships

24. **Truths and Myths about Abuse**

- To discuss how the understanding of abuse has changed

- To review definitions of what constitutes abuse and what is not abuse, based in reality

25. **Graduation: Closing Ritual**

- The women will have the opportunity to process their experiences of the group and to say goodbye

Appendix B

List of Saber Es Poder Topics and Session Goals (Spanish)

1. Introducción: ¿Qué significa ser mujer?

- Entender el formato y la agenda del grupo
- Cada participante se presentará al resto del grupo
- Explorar los significados personales y culturales de ser mujer
- Pensar sobre cómo el ser mujer ha definido su vida

2. **¿Qué sabes tú y cómo te sientes con tu cuerpo?**

- Aprender más sobre el cuerpo, sus ritmos, ciclos, y la reproducción humana.

3. **Limites físicos**

    - Entender major el espacio personal
    - Desarrollar un sentido de lo mucho o poco que se controla lo que le sucede a su cuerpo

4. **Límites emocionales: Cómo establecer límites y pedir lo que tú quieres**

    - Poder decir “Yo quiero” ante algo específicamente para ella y para nadie más
    - Entender la diferencia entre estrategias activas y pasivas para obtener lo que una quiere y prevenir el VIH o SIDA
    - Entender lo que significa establecer un límite interpersonal

5. **Prevención de VIH y negociación**

    - Identificar los factores o precipitantes que conducen a tender relaciones sexuales que conllevan riesgo
    - Aprender a generar opciones saludables para tender relaciones sexuales que no conllevan riesgo

6. **Autoestima y cómo cuidarnos a nosotras mismas**

    - Comenzar un inventario de sus cualidades positivas
    - Examinar cómo las opiniones de otras personal afectan cómo el abuso en tu vida afecta tu autoestima
    - Desarrollar un entendimiento sobre cómo el abuso en tu vida afecta tu autoestima
    - Comenzar a entender lo que significa confort para una misma o calmarse a sí misma

7. **Intimidad y confianza**

    - Entender más profundamente lo que significa la intimidad con otra personal

- Entender qué condiciones ayudan o quebrantan la confianza, la intimidad y el entendimiento mutuo

8. **Sexo con una pareja**
    - Entender lo que es tender una relación sexual íntima con una pareja
    - Aprender maneras de responder a proposiciones para tener relaciones sexuales
9. **Conocimiento sobre el trauma**
    - Aprender más sobre el trauma y el rol que ha jugado en la vida de las participantes
    - Identificar cómo se han manejado los sentimientos asociados con el trauma
10. **El cuerpo recuerda lo que la menta olvida**
    - Identificar cómo sus sentimientos hacia su cuerpo pueden estar conectados con sus experiencias de abuso
    - Entender cómo el dolor físico de hoy puede estar conectado con abuso del pasado
11. **¿Qué es el abuso físico?**
    - Poder definir lo que es abuso físico
    - Entender el impacto del abuso físico en la vida de las participantes
12. **¿Qué es el abuso sexual?**
    - Poder definir lo que es el abuso sexual
    - Entender el impacto emocional del abuso sexual
13. **¿Qué es el abuso emocional?**
    - Aprender a identificar acertadamente lo que es el abuso emocional
    - Identificar cómo el abuso emocional puede/pudo tener un gran impacto en sus vidas

14. **Abuso y los síntomas psicológicos o emocionales**

- Explorar la conexión entre los abusos del pasado y los sentimientos intensos o conductas disfuncionales del presente
- Ver cómo los síntomas se desarrollan como una reacción al trauma

15. **El trauma y el comportamiento adictivo o compulsivo**

- Comenzar a ver conexiones entre conductas compulsivas y el abuso sexual y físico
- Comenzar a ver cómo la dependencia de drogas, alcohol, comida, sexo y otras cosas son abusos en contra de ellas mismas

16. **Vida de familia en el presente**

- Explorar las relaciones que las participantes tienen hoy día con su familia e identificar fuentes de tensión
- Comenzar a decidir qué tipos de relaciones las participantes quieren tener con los miembros de la familia y qué tipos de relaciones son factibles

17. **Toma de decisiones: Cómo confiar en tu propio juicio**

- Comenzar a evaluar y a entender el proceso de tomar decisiones
- Identificar qué cosas hicieron que las participantes cedieran su autoridad en la toma de decisiones

18. **Comunicación: Cómo hacerte entender**

- Identificar estilos de comunicación que no son efectivos
- Explorar estilos de comunicación diferentes para hablar o expresarse más claramente

19. **Conductas autodestructivas**

- Explorar lo que precipita el abuso hacia una misma
- Compartir las conductas autodestructivas en una atmósfera que no produce vergüenza ni emite juicios
- Identificar reacciones alternas a las conductas autodestructivas

20. **Culpa, aceptación, y perdón**

- Explorar los conceptos de culpa y responsabilidad
- Evaluar los roles de aceptación y perdón durante el proceso de recuperación

21. **Cuando una se siente fuera de control**

- Aprender a poner palabras a las reacciones durante un torbellino emocional
- Comenzar a reconocer los precipitantes (las causas o las razones) y las consecuencias de sentirse fuera de control
- Comenzar a considerar maneras de modular las emociones

22. **Abuso y relaciones**

- Identificar patrones problemáticos y saludables in las relaciones
- Relacionar el abuso del pasado con las dificultades interpersonales de hoy

23. **Relaciones**

- Aprender sobre el desarrollo y etapas en la formación de relaciones
- Identificar obstáculos que impiden formar relaciones saludables

24. **Verdades y mitos sobre el abuso**

- Conversar sobre cómo el entendimiento sobre el abuso ha cambiado
- Repasar definiciones de qué es el abuso u qué no es abuso, basadas en la realidad

25. **Graduación: Ritual de clausura**

- Las mujeres tendrán la oportunidad de procesar sus experiencias del grupo y decir

adiós

Appendix C

Questionnaire Time 1: Beginning of Group (English Version)

Participant ID: _____

Date: _____

1. Do you have goals you are hoping to reach through your participation in this group? If so, what are they?

2. Do you have any expectations for the group? If so, what are they?

3. Do you have any concerns about participating in the group? If so, what are they?

4. Are there any challenges that you ancticipate during your participation in the group? If so, what are they?

Appendix D

Questionnaire Time 1: Beginning of Group (Spanish Version)

Participant ID: _____

Date: _____

1. ¿Tiene usted algunas metas que espera lograr a través de su participación en este grupo? Si es que sí, ¿cuales?

2. ¿Tiene usted algunas expectativas para el grupo? Si es que sí, ¿cuales?

3. ¿Tiene usted algunas preocupaciones sobre su participación en este grupo? ¿Tiene Usted algunas preocupaciones sobre haciendo yoga como parte del grupo? Si es que sí, ¿cuales?

4. ¿Hay algunos desafios que usted anticipa durante su participación en el grupo? Si es que sí, ¿cuales?

Appendix E

Questionnaire Time 2: End of Group (English Version)

Participant ID: _____

Date: _____

1. Do you feel that participating in the group helped you to reach the goals you had at the beginning? In what way?

2. Did the group meeting the expectations that you had? In what way?

3. Do you feel that you benefitted from participating in the group? If so, in what way?

4. Did you face any challenges as a result of your participation in the group? If so, what?

Appendix F

Questionnaire Time 2: End of Group (Spanish Version)

Participant ID: _____

Date: _____

1. ¿Usted siente que participar en el grupo le ayudó lograr las metas que tenía al principio? ¿En qué manera?

2. ¿El grupo satisfació las expectativas que usted tenía? ¿En qué manera?

3. ¿Usted siente que benefició a trevés de participar en el grupo? Si es que sí, ¿cómo?

4. ¿Usted enfrentó algunos retos como un resultado de participar en el grupo? Si es que sí, ¿cuáles?

Appendix G

Idiographic Measure (English Version)

Participant ID: _____

Date: _____

Time point: 1 2 (Circle one)

Instructions: For each statement below, please choose the number that best describes how true that statement is for you *in the last month*. Please remember there are no right or wrong answers. Just mark whatever answer is true for you.

1. I feel comfortable with the idea of participating in a yoga class as part of this treatment group.

0	1	2	3	4
Not at all true	A little true	Somewhat true	Mostly true	Very true

2. My body often feels tense.

0	1	2	3	4
Not at all true	A little true	Somewhat true	Mostly true	Very true

3. I frequently experience aches, pains, or physical problems that are not related to a medical disease or condition.

0	1	2	3	4
Not at all true	A little true	Somewhat true	Mostly true	Very true

4. Sometimes, part or all of my body feels numb or like it does not belong to me.

0 1 2 3 4

Not at all true A little true Somewhat true Mostly true

Very true

5. Often my heart pounds, my palms sweat, and I have difficulty breathing.

0 1 2 3 4

Not at all true A little true Somewhat true Mostly true

Very true

6. I have a hard time sleeping at night.

0 1 2 3 4

Not at all true A little true Somewhat true Mostly true

Very true

7. Sometimes I use food, alcohol, or drugs to get rid of uncomfortable feelings in my body.

0 1 2 3 4

Not at all true A little true Somewhat true Mostly true

Very true

8. I am usually able to realize what my body needs (for example, sleep, food, exercise, etc).

0 1 2 3 4

Not at all true A little true Somewhat true Mostly true

Very true

9. When I am upset, angry, or scared I am usually able to calm myself down.

0 1 2 3 4

Not at all true A little true Somewhat true Mostly true

Very true

10. My body does not work in the way I would like it to.

0 1 2 3 4

Not at all true A little true Somewhat true Mostly true

Very true

11. Sometimes I use or practice the yoga exercises I have learned in my daily life.

0 1 2 3 4

Not at all true A little true Somewhat true Mostly true

Very true

12. I feel frustrated with my body.

0	1	2	3	4
Not at all true	A little true	Somewhat true	Mostly true	Very true

13. I am aware of how I am breathing.

0	1	2	3	4
Not at all true	A little true	Somewhat true	Mostly true	Very true

14. I can notice how my body feels without labeling it as good or bad.

0	1	2	3	4
Not at all true	A little true	Somewhat true	Mostly true	Very true

15. I have choices about how to respond when my body feels uncomfortable.

0	1	2	3	4
Not at all true	A little true	Somewhat true	Mostly true	Very true

16. Even though I sometimes have uncomfortable feelings in my body (pain, tension, tiredness, heart pounding, etc.), I know that they will come to an end.

0	1	2	3	4
Not at all true	A little true	Somewhat true	Mostly true	Very true

Appendix H

Idiographic Measure (Spanish)

Participant ID: _____

Date: _____

Time: 1 2 (Circle one)

Instrucciones: Para cada declaración abajo, por favor elija el número que mejor describe que tan cierto la declaración es para Usted *en el último mes.* Por favor recuerde que no hay respuestas corectas o incorectas. Sólo marque la respuesta que sea verdad para Usted.

1. Me siento cómoda con la idea de participar en una clase de yoga como parte de este grupo de tratamiento.

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

2. Frecuentamente, mi cuerpo se siente tenso.

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

3. Frecuentamente, tengo dolores, achaques, o problemas físicos que no estan relacionados a una enfermedad o condición médica.

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

4. A veces, una parte de mi cuerpo o mi cuerpo entero se siente entumecido o como que no me pertenece.

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

5. Frecuentemente mi corazón late fuertemente, mis palmas de los manos sudan, y es dificil respirar.

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

6. Para mi, es dificil dormir en la noche.

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

7. A veces yo uso la comida, el alcohol, o las drogas para eliminar sensaciones incomodas en mi cuerpo.

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

8. Normalmente, yo puedo identificar lo que necesita mi cuerpo y cuidarlo (por ejemplo, dormir, comer, hacer ejercicio, et cetera).

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

9. Cuando estoy disgustada, enojada, o tengo miedo, normalmente yo puedo calmarme.

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

10. Mi cuerpo no funciona en la manera que me gustaría.

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

11. A veces yo uso o practico los ejercisios de yoga que he aprendido in mi vida diaria.

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

12. Me siento frustrada con mi propio cuerpo

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

13. Estoy consciente de cómo estoy respirando

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

14. Puedo notar cómo se siente mi cuerpo, sin calificarlo como bueno o malo.

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

15. Tengo opciones acerca de cómo responder cuando mi cuerpo se siente incómodo.

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica

16. A pesar de que a veces tengo sensaciones incómodas en mi cuerpo (dolor, tensión, cansancio, etc), yo sé que las sensaciones van a acabar.

0 Totalmente en desacuerdo/No me aplica

1 Algo en desacuerdo/Pocas veces me aplica

2 Algo de acuerdo/A veces me aplica

3 Muy de acuerdo/muchas veces me aplica

4 Totalmete de acuerdo/siempre me aplica